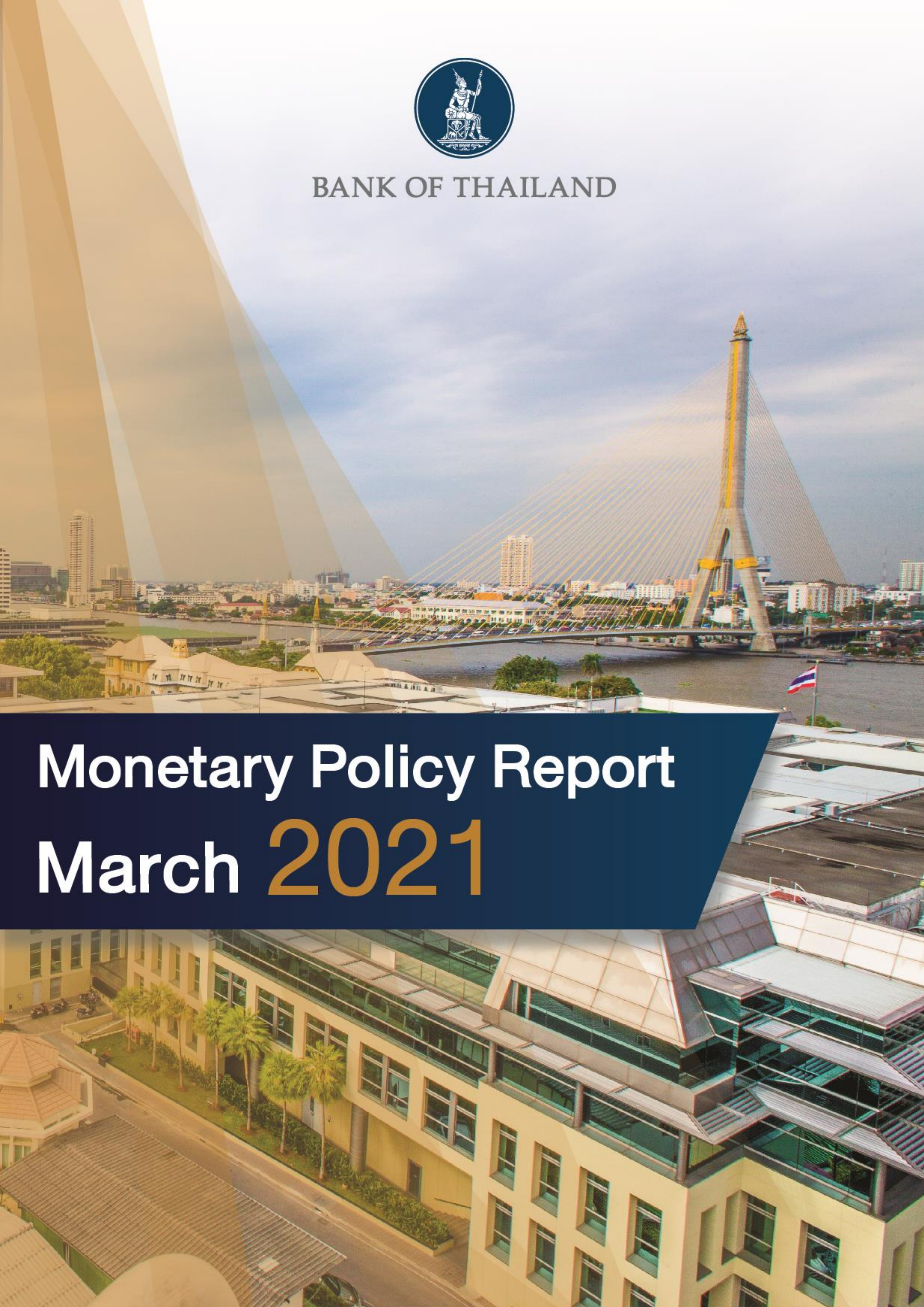
BANK OF THAILAND

Monetary Policy Report

March 2021



Monetary Policy Report

The *Monetary Policy Report* is prepared quarterly by staff of the Bank of Thailand with the approval of the Monetary Policy Committee (MPC). It serves two purposes: (1) to communicate to the public the MPC's consideration and rationales for the conduct of monetary policy, and (2) to present the latest set of economic and inflation forecasts, based on which the monetary policy decisions were made.

The Monetary Policy Committee
March 2021

Mr. Sethaput Suthiwartnarueput	Chairman
Mr. Mathee Supapongse	Vice Chairman
Mr. Paiboon Kittisrikangwan	Member
Mr. Kanit Sangsubhan	Member
Mr. Rapee Sucharitakul	Member
Mr. Somchai Jitsuchon	Member
Mr. Subhak Siwaraksa	Member

Monetary Policy in Thailand

Monetary Policy Committee

Under the Bank of Thailand Act, the Monetary Policy Committee (MPC) comprises the governor and two deputy governors, as well as four distinguished external members representing various sectors of the economy, with the aim of ensuring that monetary policy decisions are effective and transparent.

Monetary Policy Objective

The MPC implements monetary policy under the flexible inflation targeting regime. While regarding medium-term price stability as its primary objective, the MPC also aims at supporting sustainable, full-potential economic growth and preserving financial stability, attributing to long-term price stability and economic sustainability

Monetary Policy Target

On December 22, 2020, the Cabinet approved the monetary policy target for 2021, which was mutually agreed between the MPC and the Minister of Finance to set the headline inflation within the range of 1–3 percent as the target for the medium-term horizon and for 2021.

In the event that average headline inflation in the past 12 months or a forecast of average headline inflation over 12 months ahead breaches the target range, the MPC shall send an open letter to the Minister of Finance to explain reasons for the breach of the target range, together with measures taken and estimated time to bring inflation back to the target. In addition, the MPC will write an additional open letter to the Minister of Finance every six months if average headline inflation based on the above criteria remains outside the target range.

Monetary Policy Instrument

The MPC utilizes the 1-day bilateral repurchase transaction rate as the policy interest rate to signal the monetary policy stance.

Evaluation of Economic Conditions and Forecasts

The Bank of Thailand takes into account information from all sources, the macroeconomic model, data from each economic sector, as well as surveys of large enterprises, together with small and medium-sized enterprises from all over the country, and various financial institutions to ensure that economic evaluations and forecasts are accurate and cover all aspects, both at the macro and micro levels.

Monetary Policy Communication

Recognizing the importance of monetary policy communication to the public, the MPC employs various channels of communication, both in Thai and English, such as (1) organizing a press statement at 14:00 on the day of the Committee meeting, (2) publishing edited minutes of the MPC meeting two weeks after the meeting, and (3) publishing the *Monetary Policy Report* every quarter

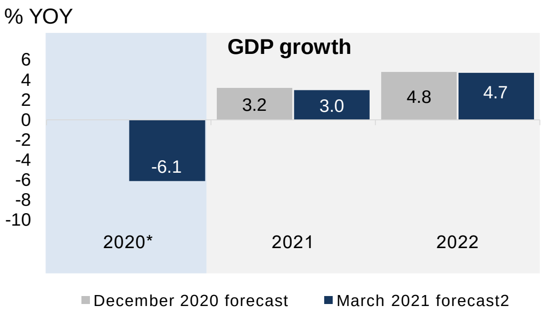
Content

Note: Data in this report is as of March 23, 2021 (one day before the Monetary Policy Committee meeting)

Key Highlights of the Monetary Policy Report, March 2021

The Thai economy continued to expand but the economic recovery remained uneven across economic sectors. Main risk factors were the efficacy and distribution of COVID-19 vaccines, the recovery in foreign tourist figures, and the continuity of government measures.

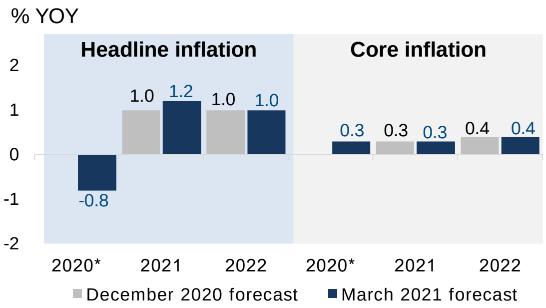
Economic growth projection



Note *Outturn
Source NESDB, estimated by Bank of Thailand

- **The Thai economy would expand 3.0 percent in 2021 due to the new wave of COVID-19 outbreak and a decreased number of foreign tourists, but this would be partially offset by the recovery in merchandise exports.**
- **In 2021, the Thai economy was projected t0 expand at a higher rate due to the rebound in foreign tourist figures following the widespread vaccination in Thailand and abroad.**

Inflation Projection

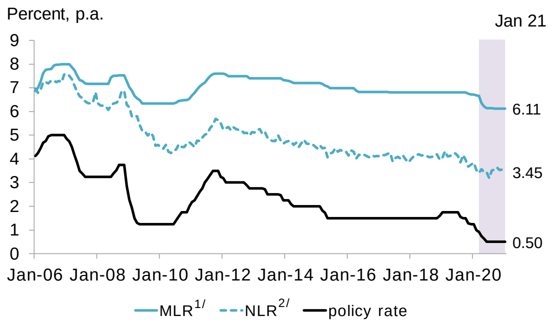


Note *Outturn
Source Ministry of Commerce, estimated by Bank of Thailand

- **Headline inflation was projected to be 1.2 percent in 2021 mainly due to the increase in Dubai crude oil prices and would also spike temporarily in the second quarter of 2021 due to the low-base effect.**
- **The headline inflation would return to the target range around mid-2021 and would remain close to the lower bound of the target in 2022.**

Financial conditions

Lending rates of commercial banks



Note: 1/ Averages of 14 commercial banks' reference loan rates
2/ New Loan Rate (NLR)
Source Bank of Thailand (as of January 2021)

- **Benchmark lending rates of commercial banks and new loan rates (NLR) were at low levels,**
- **The new financial rehabilitation measures for businesses affected by COVID-19 pandemic (the soft loan facility and the asset warehousing program) would ensure a broader coverage and greater flexibility in distribution of liquidity to target groups.**

Financial stability

Stability of financial institutions, external sectors, and fiscal, remained robust.

Soundness of business and household sectors remained fragile due to the slow economic recovery and the new waves of COVID-19 outbreak.

- **The financial positions of businesses and households become more fragile due to high debt levels and deteriorated debt servicing capability.**
- **The recovery among economic sectors would become more uneven, especially tourism-related services.**

Executive Summary

Monetary Policy Conduct in the First Quarter of 2021

At the meetings on February 3 and March 24, 2021, the Committee voted unanimously to maintain the policy rate at 0.50 percent. The Committee assessed that the Thai economy continued to expand despite the impact from the new wave of COVID-19 infections due to less strict containment measures relative to last year, the timely implementation of fiscal stimulus measures, and exports recovery in line with trading partner economies' growth. Nevertheless, the economic recovery remained uneven across economic sectors and would be subject to risks and uncertainties. Main risk factors include the efficacy and distribution of COVID-19 vaccines, the recovery in foreign tourist figures, and the continuity of government measures. The financial system remained sound, but vulnerabilities increased in the business and household sectors, especially SMEs and low-income households. Headline inflation would return to the target range around mid-2021 and remain close to the lower bound of the target range throughout the forecast period. The Committee viewed that the Thai economy still needed continued support from the low policy rate; in addition, given the risks and uncertainties ahead, the Committee viewed that the limited policy space should be preserved for the most appropriate timing to maximize policy effectiveness.

The Committee viewed that the continuity of government measures and policy coordination among government agencies would be critical to the economic recovery going forward. The government should prepare measures to provide continued support to the economic recovery and to respond to relevant risks in each period, together with devising additional measures for worst-case scenarios as needed. The Committee also saw the need to expedite the implementation of the new financial rehabilitation measures for businesses affected by COVID-19 pandemic proposed by the Bank of Thailand, the Ministry of Finance, and other related parties. These measures include the soft loan facility to support viable businesses and the asset warehousing program.

Assessment of the Economic and Financial Outlook as the Basis for Policy Formulation

1. Global Economy

The global economic outlook has improved on account of the large economic stimulus package in the U.S. and a strong recovery in Asia's exports. Looking ahead, the global economy would continue to recover on the back of the distribution of COVID-19 vaccines that would likely increase in many countries, as well as the support from ongoing fiscal stimulus measures and accommodative monetary policy. **The Committee assessed that Thailand's trading partner economies would grow 5.5 percent in 2021 and 3.8 percent in 2022. Meanwhile, the balance of risks was still tilted to the downside overall.** Near-term risks receded as the U.S. trade policy became more supportive of global trade and as COVID-19 vaccination coverage increased. However, there remained risks stemming from the new wave of COVID-19 infections that could be severe and prolonged, as well as the more fragile global financial stability.

Governments worldwide continued to implement monetary and fiscal measures, particularly in the U.S. with the recent 1.9 trillion U.S. dollars fiscal stimulus package. Central banks also continued to maintain their accommodative monetary policy by keeping policy rates low as well as through quantitative easing.

2. Financial Conditions and Financial Stability

Overall financial conditions in Thailand remained accommodative. Short-term interest rates in financial markets remained at low levels consistent with the policy rate. Meanwhile, long-term government bond yields increased in tandem with their U.S. counterparts, which rose on account of higher inflation expectations in the U.S., better economic outlook in light of the U.S. stimulus package, as well as the U.S. Treasury bond supply that was expected to rise given the stimulus package. Nevertheless, this had limited impact on overall financial conditions and financing costs in Thailand in the recent period. Financial markets were able to adjust accordingly through market mechanism and function as normal. Benchmark lending rates of commercial banks remained at low levels, while new loan rates (NLR) have declined across all loan sizes. On exchange rates, the baht against the U.S. dollar and the effective exchange rate depreciated from the previous quarter due to appreciation of the U.S. dollar following the announcement of the large U.S. stimulus package. Despite the pressure on the baht having eased as a result of the significant reduction in Thailand's current account surplus in 2021, the Committee would closely monitor developments in the foreign exchange market and capital flows and their implications for the economic recovery going forward, together with assessing the necessity of additional appropriate measures, while continue to expedite the new FX ecosystem in Thailand.

The Thai financial system remained vulnerable amid the slow economic recovery due to fragile balance sheets and debt servicing capabilities of households and businesses. Looking ahead, the new wave of COVID-19 outbreak would exacerbate the uneven recovery across sectors, with tourism-related services being most affected. As such, it would be necessary to closely monitor balance sheets and debt servicing capability of households and businesses going forward.

3. Economic and Inflation Outlook

The Thai economy was projected to expand 3.0 percent in 2021, which is lower than the previous assessment. The downward revision to the growth forecast was attributable to the new wave of COVID-19 infections at the beginning of the year and lower foreign tourist figures. Meanwhile, the less restrictive containment measures relative to last year, the additional government measures, and the recovery in merchandise exports in tandem with trading partner economies' growth were key factors supporting Thailand's economic growth. **The Thai economy would grow 4.7 percent in 2022,** slightly lower than the previous assessment on account of lower government expenditure under the fiscal year 2022 annual budget. Nevertheless, the anticipated rebound in foreign tourist figures on the back of widespread vaccination in Thailand and abroad would support the return of Thailand's GDP to the pre-pandemic level in the second half of 2022.

The value of Thai merchandise exports was projected to grow by 10 percent in 2021 and 6.3 percent in 2022 – an upward revision from the previous assessment. Export growth prospects would be driven by higher export prices following the increase in crude oil prices, as well as higher export quantity owing to trading partners' improved economic outlooks.

In particular, the large U.S. stimulus package would drive the U.S. economy and would also have positive effects on other trading partners.

Exports of services would continue to fall and recover at a slow pace. The number of foreign tourists was projected to decline to 3.0 million in 2021 and 21.5 million in 2022 due to the delay in Thailand's re-opening plan to foreign tourists, international travel restrictions faced by Chinese tourists, delays in COVID-19 vaccination in some countries, and the mutation of COVID-19 which affected tourism sentiment.

Current account surplus was projected to decline significantly in 2021 due to high import growth. The current account balance was projected to register a surplus of 1.2 billion U.S. dollars in 2021, owing to low foreign tourist figures as well as higher import prices following the rise in crude oil prices. However, the decline in current account surplus in 2021 would be partly attributed to temporary factors such as an increase in gold imports when gold prices drop and higher transportation costs from shortage of freight containers. **Current account balance would record a larger surplus of approximately 25 billion U.S. dollars in 2022 following the recovery in foreign tourist figures.**

Private consumption would expand more-than-expected in the near term but would likely be subdued later. Private consumption in the fourth quarter of 2020 turned out stronger-than-expected due to (1) car purchases during the end-of-year sales promotion campaigns and (2) positive effects of additional government measures in response to the new wave of COVID-19 outbreak. Nevertheless, the recovery in labor income was not yet broad-based. Given the fragile balance sheets of households and weak labor market, private consumption in the period ahead would likely be subdued.

Private investment would recover at a gradual pace. Investment in machinery and equipment grew on the back of international trade and better-than-expected private consumption. Meanwhile, public-private partnership (PPP) investment projects, particularly in the Eastern Economic Corridor (EEC), were progressing with greater clarity.

Going forward, Thailand's economic outlook would remain highly uncertain and could face downside risks due to the following factors. First, Thailand's border re-opening to foreign tourists could delay given the limited progress of COVID-19 vaccination. Second, fiscal stimulus could be lower given delay in approval process for remaining projects under the Emergency Decree which would remain in effect until the third quarter of 2021. Third, balance sheets of businesses could deteriorate, possibly triggering permanent shutdowns and layoffs. This could leave scarring effects and hinder recovery of businesses and labor even after the pandemic subsided. Fourth, the non-performing loan ratio in the business and household sectors could surge after the phase-out of credit relief measures.

The Committee assessed the different recovery scenarios for the Thai economy which would depend largely on the foreign tourist figures. The assessment based on three scenarios – the base case, the worse case, and the worst case – indicated that foreign tourist figures in 2021 could be between 0.1 million to 3 million, which would result in GDP growth ranging from -1.7 to 3 percent. For 2022, the number of foreign tourists was estimated between 0.1 million to 21.5 million which would correspond to GDP growth ranging from -0.3 to 4.7 percent.

Headline inflation was projected to be 1.2 percent in 2021 and 1.0 percent in 2022. The rise in headline inflation in 2021 would be mainly on account of supply-side factors, namely the increase in Dubai crude oil prices to an average of 60 U.S. dollars per barrel. Headline inflation would also spike temporarily in the second quarter of 2021 due to the low-base effect as Dubai crude oil prices were low at about 30 U.S. dollars per barrel in the same period last year. Core inflation projections were largely unchanged at 0.3 percent in 2021 and 0.4 percent in 2022. The Committee assessed that headline inflation would return to the target range around mid-2021 and would remain close to the lower bound of the target throughout the forecast period.

1. The Global Economy

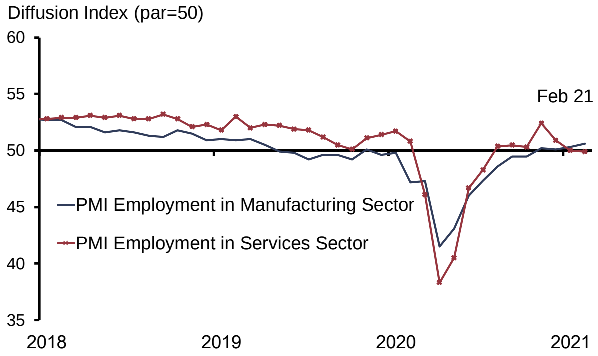
The global economic activities had obviously recovered, supported by the stimulus package in the U.S. and continued recovery in exports. In the near-term, Thailand's trading partner economies would be affected by the new wave of COVID-19 infections to some degree, although this would not affect the overall outlook by a significant margin.

In the fourth quarter of 2020, major advanced economies contracted less than expected. Economic growth in the U.S. was stronger than expected, owing to the implementation of stimulus measures such as unemployment benefits. The euro area and Japanese economies contracted less than previously assessed due to the limited impact of containment measures on domestic demand, and strong export growth.

Looking ahead, major advanced economies were expected to register stronger growth. While the new wave of COVID-19 infections has some impact on economic activities in the near term, the overall outlook has improved thanks to the increase in COVID-19 vaccine distribution in many countries and the gradual relaxation of containment measures. Additionally, the large economic stimulus package in the U.S. that was recently announced in March 2021 (totaling 1.9 U.S. dollars[1/]) would underpin a stronger economic recovery in the U.S. and support the recovery in global exports. However, hindering factors in the period ahead include (1) the new wave of infections and mutation of COVID-19 which could push back the relaxation of containment measures; (2) the slow recovery in labor income, especially in the service sector, despite the continuous government measures having helped to sustain hiring to some extent (Chart 1.1); and (3) the delayed implementation of travel bubbles between countries or designated cities, which slowed down the recovery for tourism-related businesses and prolong the existence of excess capacity. Meanwhile, the manufacturing sector would continue to recover (Chart 1.2), although capacity utilization is still below pre-pandemic levels given that global demand has not fully recovered.

Chart 1.1 Global employment in the manufacturing sector have recovered faster than those employment in the services sector.

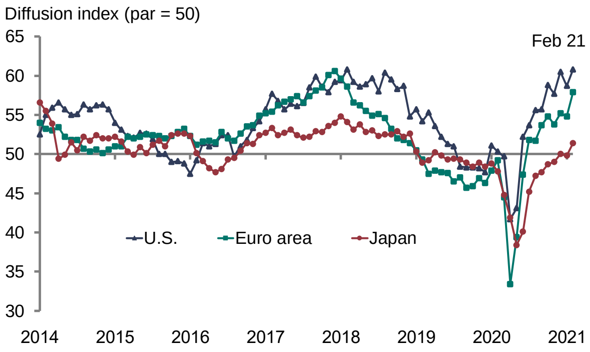
Global Purchasing Manager Index (PMI): Employment



Source: JP Morgan

Chart 1.2 G3's manufacturing sector continued to recover.

Manufacturing Purchasing Manager Index (PMI)



Sources: Bloomberg and Eurostat

[1/] Key measures include (1) direct stimulus payments of 1400 U.S. dollar per person (2) extension of the weekly unemployment benefits payout of 300 U.S. dollar (3) additional budget allocation to local governments (4) funding assistance to support school reopening and education (5) additional budget for COVID-19 testing and vaccination, and public health

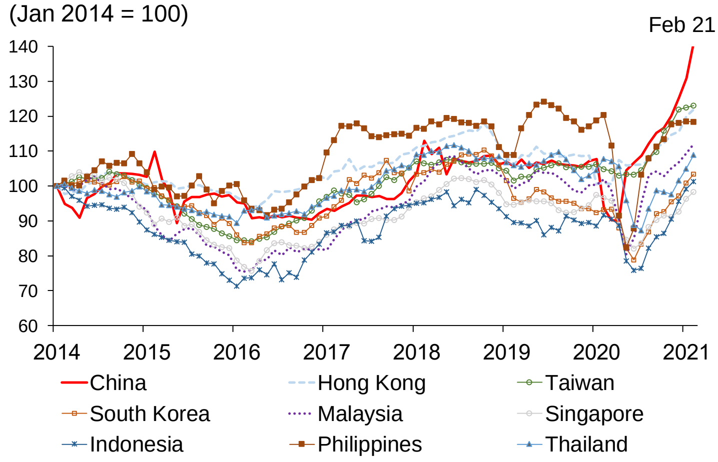
China and other Asian economies were expected to see stronger growth driven by the recovery in exports following the relaxation of containment measures in trading partner countries and the positive effects from a stronger global economic recovery.

In the fourth quarter of 2020, the Chinese economy continued to expand from the previous quarter driven by stronger exports as external demand recovers following the relaxation of containment measures, especially demand for electronic goods and medical equipment which increased due to the COVID-19 pandemic. **Looking ahead, the Chinese economy would continue to expand despite some slowdown in the beginning of 2021 due to the new wave of COVID-19 infections among trading partners.** Private consumption would continue to grow alongside the gradual improvements in employment and income. Private investment would also continue to expand, especially in the manufacturing sector. Meanwhile, exports would see a strong expansion supported by the large stimulus package in the U.S. and the gradual relaxation of containment measures in many countries.

Asian economies (excluding Japan and China) registered a smaller contraction in the fourth quarter of 2020 as exports continue to grow in tandem with the recovery in global demand, following the relaxation of containment measures (Chart 1.3). However, private expenditure was still gradually recovering as the containment measures in some countries were still holding back the recovery in domestic demand. In the period ahead, Asian economies were expected to see stronger growth driven by (1) merchandise exports growth supported by the large stimulus package in the U.S. and (2) the gradual relaxation of measures to contain the new wave of COVID-19 and the gradual increase in vaccination coverage.

Chart 1.3 Asian exports continued to grow in tandem with the recovery in global demand

Export Value Index, 3-month moving average, seasonally adjusted (Jan 2014 = 100)



Source: CEIC

Governments worldwide continued to implement monetary policy and fiscal measures to alleviate the impact from the COVID-19 outbreak.

Governments in many countries deployed additional fiscal stimulus to alleviate the economic impact of the COVID-19 pandemic. This includes the U.S.'s stimulus package totaling 1.9 trillion U.S. dollars (approximately 8.7 percent of GDP), the UK's [Three-Point Plan] totaling 65 billion British pounds (approximately 3.2 percent of GDP), Hong Kong's relief package totaling 120 billion Hong Kong dollars (approximately 4.2 percent of GDP), and the euro area's Recovery and Resilience Facility totaling 672.5 billion euros.

Central banks in major advanced economies continued to maintain accommodative monetary policy, including both low policy interest rates and quantitative easing. The Federal Reserve (Fed) continued to purchase treasury bonds and mortgage-back securities under the Large-Scale Asset Purchase program. The European Central Bank (ECB) continued to implement policies announced since December 2020, which include (1) bond purchases under the Pandemic Emergency Purchase Program (PEPP) in the amount of 1.85 trillion euros until end-March 2022 or until the COVID-19 crisis subsides; (2) the third Targeted Longer-Term Refinancing Operations (TLRO III) which is set to end in June 2022; and (3) the Pandemic Emergency Longer-Term Refinancing Operations (PELTROs) to provide liquidity support for financial institutions. The ECB also continued to purchase bonds under its Asset Purchase Program (APP) in the amount of 20 billion euros per month. The Bank of Japan (BOJ) continued to implement Quantitative and Qualitative Monetary Easing with Yield Curve Control although the operational parameters have been adjusted for better effectiveness and sustainability. Adjustments include (1) establishing the new Interest Scheme to Promote Lending which applies fixed interest rates on current account balances to financial institutions that borrow funds from the BOJ to finance their lending activities in order to mitigate the impact of future policy rate cuts on financial institutions; (2) allowing the 10-year Japanese Government Bond (JGB) to fluctuate within the 0±0.25 percent range; and (3) making permanent the upper limits on purchases of ETFs (12 trillion yen) and J-REITs (180 billion yen) which were originally set as temporary measures in response to the COVID-19 pandemic.

Regional central banks maintained an accommodative monetary policy. Most central banks kept their policy rates at low levels, while Bank Indonesia (BI) had cut its policy rate further and continued to purchase government bonds in the primary market (direct financing) to accommodate Indonesia's large fiscal deficit.

The growth projections for Thailand's trading partners were revised up throughout the forecast period, but the balance of risks remained tilted to the downside overall.

Trading partner economies were projected to see higher growth in 2021 and 2022 than previously assessed in the *Monetary Policy Report*. Major advanced and Asian economies were expected to grow stronger than previously assessed, mainly on account of the large fiscal stimulus package in the U.S. as well as the continued recovery in exports. **The Committee thus revised up the growth forecasts for trading partner economies to 5.5 percent in 2021 and 3.8 percent in 2022** (Table 1.1).

Table 1.1 Assumption on trading partner's growth

Annual change (%YoY)	Weight (%)	2020*	2021	2022
United States	20.4	-3.5	5.9 (3.3)	4.0 (2.5)
Euro area	9.2	-6.8	4.3 (4.3)	3.2 (1.9)
Japan	13.9	-4.8	2.5 (2.4)	2.3 (1.7)
China	18.1	2.3	8.5 (8.3)	4.9 (4.7)
Asia (excluding Japan and China)*	30.6	-4.5	5.1 (4.8)	3.8 (3.4)
Total***	100	-3.5	5.5 (4.8)	3.8 (3.1)

Note: *Outturn

**Weighted by 7 trading partners' shares in Thailand's exports in 2020, namely, Singapore (5.8%), Hong Kong (6.9%), Malaysia (5.3%), Taiwan (2.3%), Indonesia (4.7%), South Korea (2.6%), and Philippines (3.1%)

***Weighted by 13 trading partners' shares in Thailand's exports in 2020 (including the United Kingdom and Australia)

( ) as reported in Monetary Policy Report, December 2020

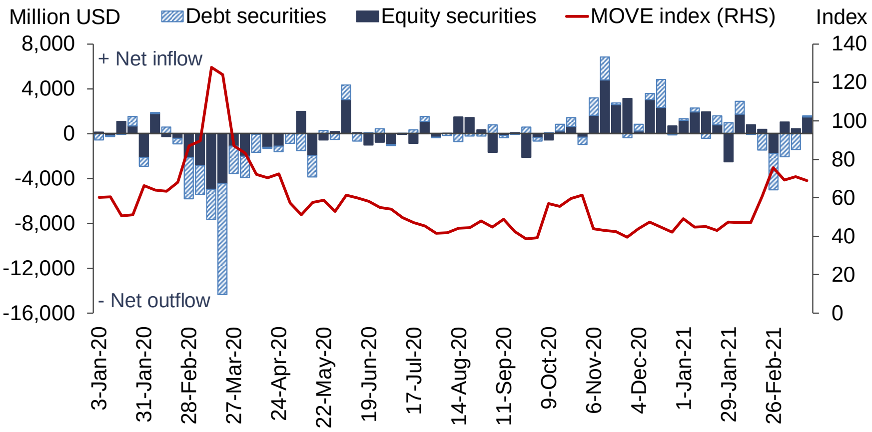
The Committee assessed that risks to trading partners' economic outlook are tilted to the downside. Near-term risks receded as the U.S. foreign trade policy became more supportive of global trade under the Biden administration. Going forward, risks pertaining the outbreak of COVID-19 would gradually recede as vaccination coverage increases rapidly across many countries. **However, there remained pockets of risks** stemming from (1) the new wave of COVID-19 infections in many countries that could be severe and prolonged; and (2) the more fragile global financial stability whereby the private sector and governments of some countries might face higher default risks or could have their credit ratings downgraded. At the same time, **trading partner economies could still outperform the baseline forecasts** if (1) the COVID-19 pandemic subsides and vaccination is timely, and (2) fiscal stimulus measures of various countries provided a larger-than-expected boost to economic growth.

There were capital outflows from emerging market economies towards the end of the first quarter of 2021 as government bond yields in most countries rose in tandem with U.S. Treasury yields.

In the beginning of 2021, there were continued capital inflows into bond and equity markets of emerging market economies since the end of 2020. Key factors underpinning improved investor confidence at the time were the vaccination progress in many countries and greater clarity regarding Joe Biden as the next U.S. President.

Chart 1.4 there were capital outflows from EMs towards the end of the first quarter of 2021 as the majority of government bond yields spiked following US Treasury yields at the end of Q1-2021

Net capital inflows into EMs* and MOVE index (weekly)



Note: *EMs include Thailand, Indonesia, India, South Africa, and Turkey
The MOVE index is a measure of bond market volatility that utilized the implied yield volatilityof the US Treasury market

Source: Bloomberg and the Institute of International Finance

However, there were capital outflows from EMs towards the end of the first quarter of 2021, especially from the bond market as government bond yields in many countries rose in tandem with U.S. Treasury yields (Chart 1.4). The MOVE index[2/] spiked around the end of February, reflecting the increased volatility in U.S. Treasury yields. Meanwhile, the better-than-expected economic outturns in the U.S., monetary easing by the

[2/] The MOVE Index (ICE BofAML US Bond Market Option Volatility Estimate Index) measures volatility in bond market based on the implied yield volatility in the U.S. bond market

Fed, and the announcement of the large fiscal stimulus package by the U.S. government led to a state of reflation with rising inflation expectations and rising prices of risky assets such as equity, oil, and commodities. Investors were concerned that the Fed might raise the Federal Funds Rate sooner than expected to rein in inflation, and that the issuance of U.S. Treasury bonds would accelerate with increased financing demand to boost economic growth. This led to an increase in the long-term U.S. Treasury yields, which also prompted increases in government bond yields globally. As a result, foreign investors started to scale back their investments in EMs given that EM bond prices would likely decline due to the sharp rise in government bond yields, and that EM currencies would likely depreciate.

Looking ahead, capital flows in EMs would likely be highly volatile. This depends on a number of factors. First, the direction of monetary policy in the U.S. and other major advanced economies in the period ahead. Second, the recovery path of the global economy and the implications for inflationary pressure, particularly the developments in the U.S. labor market. Third, the global COVID-19 vaccination progress. Fourth, the fragility in global financial stability from elevated debt levels on a global scale as the private sector and governments in some countries could default on their debt.

Dubai crude oil prices increased in the first quarter of 2021 due to a tightening in the supply of oil following production cuts by Saudi Arabia, oil production in the U.S. being impacted temporary by the severe winter storm, extension of production cuts by OPEC+ countries, and increased oil demand from the improved global economic outlook.

Chart 1.5 Dubai crude oil prices in the first quarter of 2021 increased due to a tightening in the supply of oil as OPEC members and allies cut production especially Saudi Arabia. Also temporary decrease in oil production of US from the severe winter storm and the recovery of global economic growth.

Crude Oil Price Projection

Dubai crude oil prices increased in the first quarter of 2021 (Chart 1.5) due to a tightening in the supply of oil. This tightening can be attributed to (1) Saudi Arabia further cutting oil production by 1 million barrel per day on top of OPEC members and allies to cut production between February to April 2021 to restore oil market balance; (2) the temporary decrease in oil supply from the U.S. due to the severe winter storm which caused a widespread power outage and impacted oil production; and (3) OPEC members and allies extended their agreement to cut production by 7.2 million barrel per day by one month through to April 2021. Moreover, the increase in Dubai crude oil prices was also driven by increased oil demand as prospects for a global economic recovery improved following the announcement of the large fiscal stimulus package in the U.S.

The Committee revised up Dubai crude oil prices assumptions in 2021 and 2022 from 47.3 and 51.5 U.S. dollars per barrel to 60.0 and 62.5 U.S. dollars per barrel, respectively. The upward revision was attributed to the global economic recovery prospect boosted by stimulus measures in the U.S., oil production cuts by OPEC members and allies, and a prospective slowdown in investment by U.S. oil producers that would result in a slower-than-expected increase in shale oil production. Nevertheless, U.S. oil producers might ramp up oil production if the increase in global oil prices continues. Meanwhile, global oil supply could also pick up after production cuts by OPEC members and allies come to an end.

Risks to the outlook for Dubai crude oil prices became balanced between the downside and the upside. Downside risks include (1) prolonged outbreak of COVID-19 and delays in vaccination that lead to a decline in demand for oil; (2) escalation of US-China trade tensions; and (3) OPEC members and allies failing to meet their production cut agreements. Upside risks include (1) geopolitical risks becoming more intensified; (2) decreased fossil fuel subsidies in the U.S. resulting in higher production costs for U.S. oil producers.

2. The Thai Economy

2.1 Recent developments

The Thai economy continued to recover in the fourth quarter of 2020 thanks to the support from government measures. The new wave of COVID-19 infections had limited impact on economic activities in the first quarter of 2021.

The Thai economy contracted 4.2 percent in the fourth quarter of 2021 – an improvement from the 6.4 percent contraction in the previous quarter. Private consumption growth turned slightly positive with the support from government measures and the gradual improvement in household purchasing power. Public consumption remained an important growth driver, although public investment slowed down somewhat due to the delayed enactment of the Annual Budget Expenditure Act for the fiscal year 2021. Merchandise exports improved in tandem with the recovery in trading partner economies, especially exports of electronics and electrical appliances which benefited from the work-from-home arrangements being widely implemented. Growth in exports of automobiles resumed owing to the relaxation of containment measures in many countries and pent-up demand from the prior period. Private investment registered a smaller contraction thanks to stronger demand and improved business confidence. Meanwhile, exports of services continued to see large contractions due to international travel restrictions, although the re-opening of the country to foreigners who hold the Special Tourists Visa (STV) has been commenced since October 2020.

Economic indicators reflected a clearer impact of the new wave of COVID-19 infections on the Thai economy in the first quarter of 2021. Nonetheless, the overall impact was not as severe as the first wave. Private consumption contracted on account of declining consumer confidence and household purchasing power as well as reduced economic activities following stringent containment measures in some areas. Nevertheless, the continued government measures helped shore up purchasing power to some extent. Private investment declined as business confidence faltered following the new wave of infections. Meanwhile, public expenditure increased, in part due to the postponement of some budget disbursement from the fiscal year 2020 to the fiscal year 2021. Merchandise exports continued to recover in tandem with trading partners’ growth, with exports of automobiles accelerating this quarter in light of pending orders from December 2020. Export of services continued to register large contractions due to international travel restrictions and the more severe COVID-19 outbreaks in many countries.

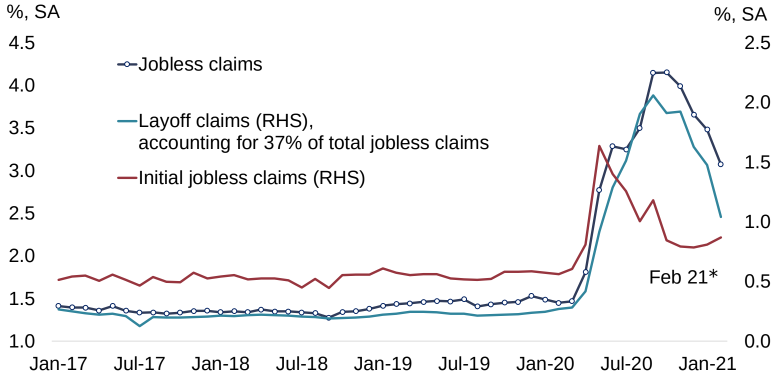
Household income remained fragile due to the new wave of COVID-19 infections and the drought.

Household income remained fragile overall. Non-farm income was affected by the new wave of COVID-19, although to a lesser extent compared to the first wave. The number of employed persons, as reflected by the number of employees who contribute to social security system (Section 33), remained lower than the pre-pandemic level. The number of initial jobless claims by insured persons (Section 38) increased since January 2021, with most claims being made by workers that were laid off (Chart 2.1).

Farm income growth slowed as agricultural output fell due to the drought, especially sugarcane and rice. Meanwhile, agricultural prices increased from rising sugarcane and rubber prices. The rise in sugarcane price was attributed to lower crop output, while the rise in rubber prices was attributed to increased demand for rubber gloves.

Chart 2.1 Non-farm income decreased, although by a lesser extent than during the first wave, with initial jobless claims rising since the beginning of the year

Ratio of jobless claims (Section 38) to total number of insured persons (Section 33)*



Note: *Feb 21: Total jobless claims of 310,031 consisted of 114,890 layoff claims, 219,811 voluntary unemployment claims, and 12,480 contract termination claims

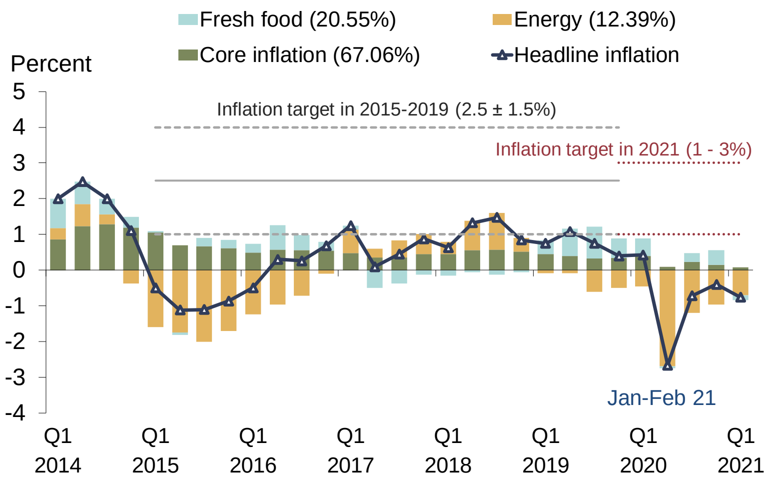
Source : Social Security Office and Bank of Thailand's calculations

Headline inflation was more negative than the previous quarter mainly due to the decline in fresh food prices. Core inflation also decreased on account of government measures to lower the cost of living.

Headline inflation in the first two months of the first quarter of 2021 averaged -0.76 percent, more negative than -0.40 percent in the previous quarter (Chart 2.2). This was largely attributed to the contraction in fresh food prices as vegetable prices fell due to higher crop output. Meanwhile, energy prices registered a smaller contraction compared to the previous quarter as retail oil prices increased in line with global crude oil prices. Nevertheless, the government's measure to reduce electricity bills to lower the cost of living during the new wave of COVID-19 infections had curbed the increase in energy prices.

Chart 2.2 Headline inflation was more negative than the previous quarter, owing mainly to lower fresh food prices

Headline inflation and inflation target



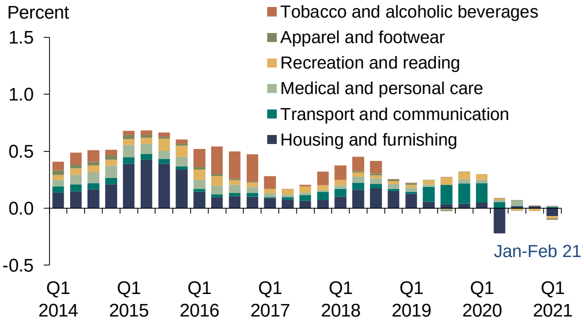
Note: ( ) denotes share in inflation baskets

Source: Ministry of Commerce, calculated by Bank of Thailand

Core inflation in the first two months of the first quarter of 2021 averaged 0.13 percent, down from 0.19 percent in the previous quarter. Core inflation in the non-food category decreased in line with prices of housing and furnishing, which declined due to the government's measure to reduce water bills to lower the cost of living during the new wave of COVID-19 infections (Chart 2.3). Core inflation in the food category increased slightly from higher prices of seasoning and condiments (Chart 2.4).

Chart 2.3 Core inflation in the non-food category (70% of core inflation) decreased due to the government's measures to reduce water bills to lower the cost of living

Contribution* to core inflation in the non-food category

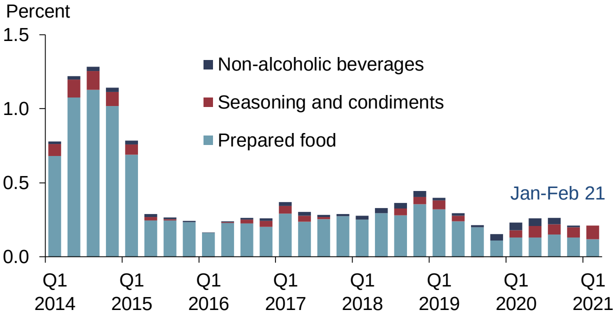


Note: *Contributions to core inflation decompose core inflation into inflation of each component within the basket, weighted by its corresponding share.

Source: Ministry of Commerce, calculated by Bank of Thailand

Chart 2.4 Core inflation in the food category (30% of core inflation) slightly increased mainly due to seasoning and condiment prices

Contribution* to core inflation in the food category



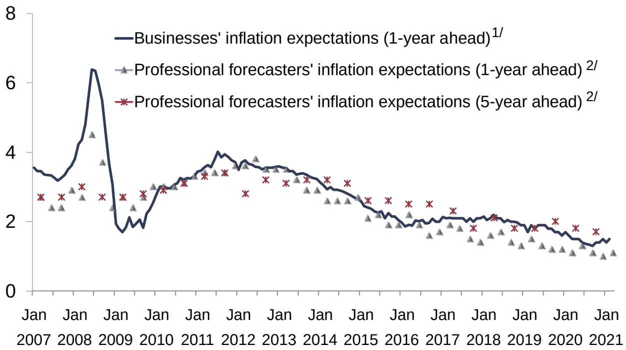
Note: *Contributions to core inflation decompose core inflation into inflation of each component within the basket, weighted by its corresponding share.

Source: Ministry of Commerce, calculated by Bank of Thailand

Both the short-term and long-term inflation expectations remained within the target range. The short-term (one-year ahead) inflation expectations according to the survey of professional forecasters in March 2021 was 1.1 percent, while inflation expectations based on the survey of businesses in February 2021 was 1.5 percent. The long-term (five-year ahead) inflation expectations based on the survey of professional forecasters in October 2020 was 1.7 percent (Chart 2.5).

Chart 2.5 Short-term and long-term inflation expectation remained within the target range

Percent change from the same period last year



Source: [1/] Business Sentiment Survey (BSI) by the Bank of Thailand
[2/] Asia Pacific Consensus Forecast

Table 2.1 Inflation

Annual percentage change	2019				2020				2021
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Jan - Feb
Headline Consumer Price Index (Headline CPI	0.74	1.08	0.61	0.40	0.42	-2.67	-0.72	-0.40	-0.76
Core Consumer Price Index (Core CPI)	0.62	0.54	0.45	0.47	0.53	0.12	0.31	0.19	0.13
Fresh food	2.51	4.98	5.79	3.58	3.13	-0.34	1.55	2.65	-0.41
Energy	-0.78	-0.67	-4.95	-4.09	-3.88	-22.86	-10.46	-8.43	-6.16

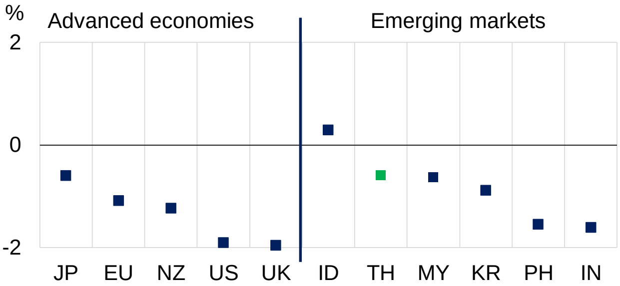
Source: Bureau of Trade and Economic Indices, Ministry of Commerce

The overall costs of financing through commercial banks and the bond market remained low despite the sharp rise in long-term government bond yields in February and March 2021. Meanwhile, corporate credit spreads continued to decline.

During the first quarter of 2021, the overall cost of financing remained accommodative, as indicated by the real policy rate in Thailand which remained low and consistent with those in other EMs (Chart 2.6). **Short-term interest rates in financial markets remained at low levels close to the policy rate. Meanwhile, short-term government bond yields rebounded to levels close to the policy rate** (Chart 2.7). This was on account of increased issuance of short-term government bonds consistent with higher bond demand from domestic investors following a period of low bond supply in the fourth quarter of 2020. **Medium-term and long-term government bond yields rose sharply** in February and March 2021 (Chart 2.8) driven mainly by external factors. The movements of Thai bond yields were in line with the sharp rise in U.S. Treasury yields following the announcement of the large stimulus package in U.S. which would likely result in higher issuance of U.S. Treasury bonds to finance the large spending needs. The rise in bond yields was also driven by the recovery outlook of the U.S. economy and improvement in its COVID-19 situation, which resulted in higher inflation expectations in the U.S. **Nevertheless, the increase in long-term Thai government bond yields had limited impact on bond market functioning and overall financial conditions in Thailand.** Most recently, long-term Thai government bond yields have declined and exhibited less co-movement with U.S. Treasury yields. Institutional investors were also drawn by higher yields and resumed purchase of long-term Thai government bonds.

Chart 2.6 Thailand's real policy rate* remained low and consistent with other emerging market (EM) economies

Real policy rates*

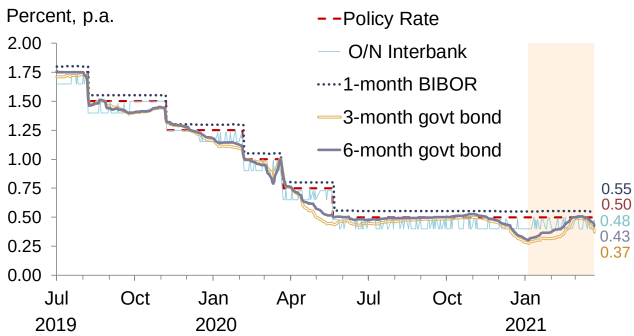


Note: *Calculated from policy rate as of March 23, 2021 subtracted by one-year-ahead inflation expectation according to the survey by Consensus Forecasts (data as of March 8, 2021)

Sources: Bloomberg and Consensus Forecasts, calculated by Bank of Thailand

Chart 2.7 Short-term money market rates remained at low levels close to the policy rate, while short-term government bond yields rose to levels close to the policy rate as short-term government bond supplies increased

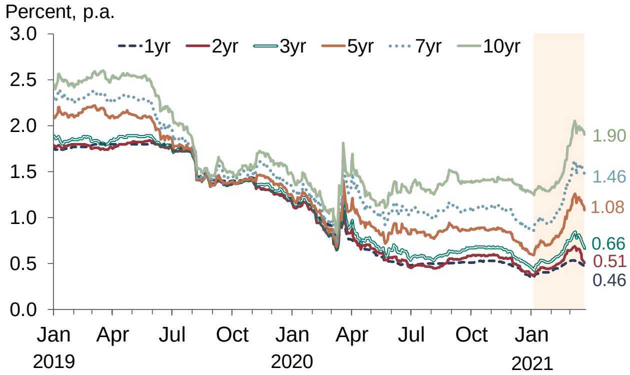
Short-term rates in financial markets



Sources: Bank of Thailand and Thai Bond Market Association (Thai BMA) (data as of March 23, 2021)

Chart 2.8 Medium-term and long-term government bond yields increased sharply in February and March 2021 in tandem with US Treasury yields

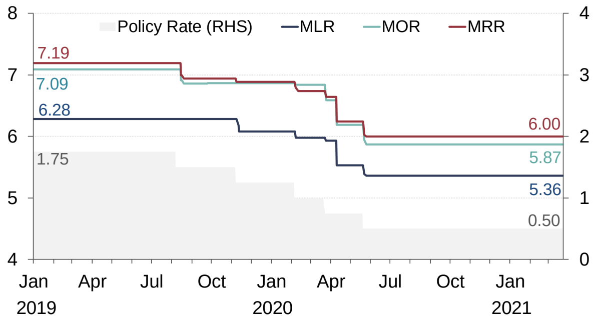
Government bond yields



Source: Thai Bond Market Association (Thai BMA) (data as of March 23, 2021)

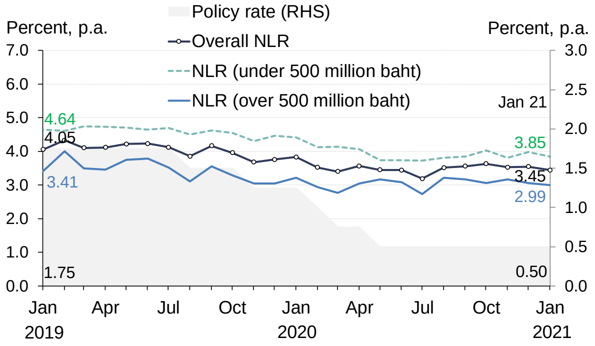
The private sector financing cost through commercial banks remained stable at low levels as reflected by the benchmark lending rates of five largest commercial banks which were unchanged (Chart 2.9). Since the end of last year, new loan rates (NLR[3/]) have declined to 3.45 percent in January 2021 as the interest rate on new loans declined across all contract sizes (Chart 2.10). Meanwhile, **deposit rates** remained low (Chart 2.11).

Chart 2.9 MLR, MOR and MRR were unchanged from the previous quarter



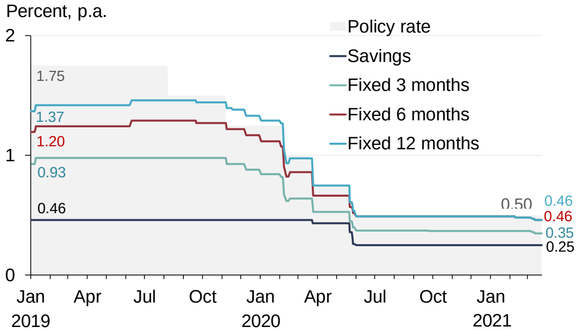
Note: Averages of 5 largest commercial banks' reference loan rates
Source: Bank of Thailand (data as of March 23, 2021)

Chart 2.10 New loan rates (NLR) of commercial banks slightly declined from the end of 2020 in all contract sizes



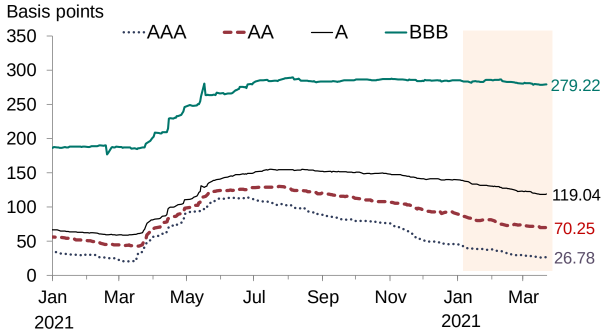
Source: Bank of Thailand (data as of March 23, 2021)

Chart 2.11 Commercial banks' deposit rates remained at low levels



Note: Averages of 5 largest commercial banks' deposit rates
Source: Bank of Thailand (data as of March 23, 2021)

Chart 2.12 Corporate credit spreads of 1-3 year maturity gradually declined for A rating group and above



Sources: Bank of Thailand and Thai Bond Market Association (Thai BMA) (data as of March 23, 2021)

The credit spread between corporate and government bonds (corporate credit spread) with 1-3 year maturity (common maturity among corporate bonds issued in recent times) and credit rating of A or higher continued to see a gradual decline (Chart 2.12). In particular, the corporate credit spread for AAA-rated bonds declined to pre-pandemic levels. However, the corporate credit spread of those with credit rating of BBB remained high as investors were still cautious about investing in corporate bonds with higher risk ratings.

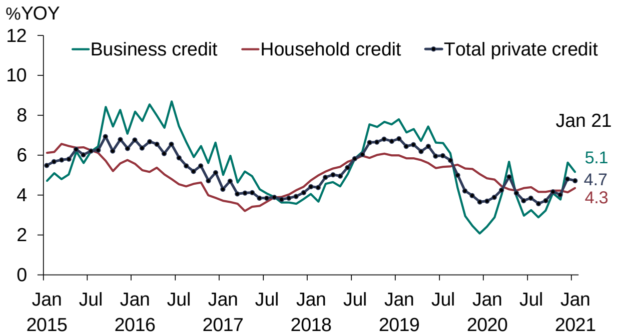
[3/] NLR is the weighted average interest rates on new loan contracts extended by 14 Thai commercial banks. The data covers loans of all types, purposes, and maturities, both secured and non-secured loans, but excludes overdraft loans, consumer loans, credit card loans, repurchase agreements, bank guarantees, as well as loans to financial intermediaries, the public sector, and non-residents. Moreover, interest rates used in the calculation refer to the mid-rate between the lowest and the higher rates in each loan contract.

Private sector financing expanded on the back of business credit, while growth in household credit was stable.

In January 2021, private sector loans and bond issuances (private credit)[4/] grew 4.7 percent from the same period last year (Chart 2.13) primarily on account of business credit. **Business loans and corporate bond issuances grew 5.1 percent** from the same period last year (Chart 2.14). This was driven by the acceleration in business credit in December 2020 as large corporates borrowed from abroad to finance acquisitions, as well as borrowings by commercial businesses. However, business credit slowed down slightly in January 2021 as commercial banks reduced lending to manufacturing businesses. Meanwhile, growth in corporate bond issuance in January 2021 was at a historical low[5/] of 2.4 percent. This could be attributed to the ample liquidity in the financial system, low interest rates offered by financial institutions, and high corporate credit spread for lower-rated bonds, which drove businesses to obtain financing through financial institutions. **Household credit expanded 4.3 percent in January 2021** from the same period last year, close to the growth in the fourth quarter of 2020. This was attributed to loans from specialized financial institutions as their soft loan programs were extended to help alleviate the impact of the new wave of COVID-19.

Chart 2.13 Private credit (private sector loans and bond issuances) expanded mainly on the back of business credits

Growth of private credit



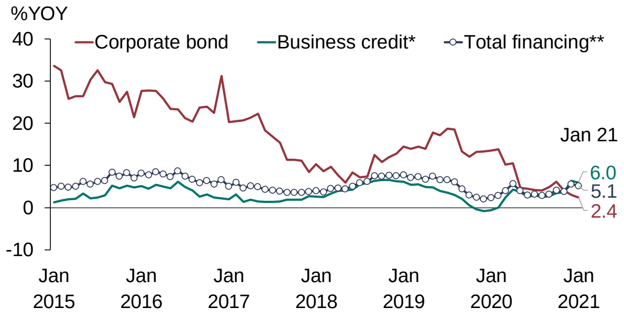
Notes: 1) Private sector loans include credit extended by (1) Other Depository Corporations (ODCs) namely commercial banks, specialized financial institutions, finance companies, saving cooperatives,and money market mutual funds, (2) Other Financial Corporations (OFCs), and (3) non-residents

2) The definition of private credit was redefined to cover broader types of lenders and financial instruments. The data was first published in the MPR in 2019Q4, where the data was available from January 2012.

Source: Bank of Thailand

Chart 2.14 Corporates switched financing source from bond issuances to business credits

Growth of business credit and corporate bond outstanding



Note: * Business loans covers lending activities of Other Depository Corporation (ODCs), Other Financial Corporations (OFCs), and non-residents

** The definition of private credit was redefined to cover broader types of lenders and financial instruments. The data was first published in the MPR in 2019Q4, while the data was available from January 2012.

Sources: Thai Bond Market Association (Thai BMA) and Bank of Thailand

For the first quarter of 2021, businesses and households would likely need additional liquidity due to the impact of the new wave of COVID-19 infections which could be prolonged[6/]. It was expected that **businesses would obtain financing mainly through commercial banks** to benefit from the new soft loan measures announced by the government and low interest rates. At the same time, financial institutions would remain cautious in extending credit throughout the first quarter of 2021, especially to new

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[4/] Loans extended to the private sector consist of loans extended by (1) other depository corporations (ODCs) namely commercial banks, specialized financial institutions, finance companies, saving cooperatives and market mutual funds, (2) other financial institutions (OFCs), and (3) non-residents

[5/] Lowest since the collection of borrowing and corporate issuance data began in January 2011.

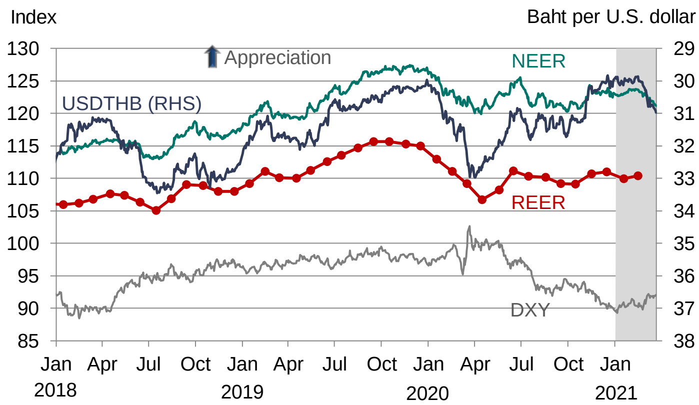
[6/] Based on commercial banks' survey response for the Report on Credit Conditions Q4/2020 and Outlook for Q1/2021 borrowers and businesses that would take a long time to recover. **Bond issuance would likely be limited** as businesses shift to borrow from commercial banks due to the lower financing costs compared to bonds. This is because interest rates offered by commercial banks would likely remain low, while long-term Thai government bond yields could be driven higher by external factors and the high corporate credit spread for issuers with lower credit rating (BBB). **Demand for household credit was expected to increase**, especially for consumer loans and credit card loans to manage their liquidity during the new wave of COVID-19 infections. This increase in demand could also be attributed by the enhancement and extension to the soft loan programs offered by specialized financial institutions.

The baht against the U.S. dollar and the nominal effective exchange rate depreciated from the previous quarter due to the appreciation of the U.S. dollar following the announcement of the large stimulus package in the U.S. which improved the outlook of the U.S. economy.

In the first quarter of 2021, the **baht against the U.S. dollar** depreciated compared to the previous quarter (Chart 2.15). This was due to the appreciation of the U.S. dollar following the announcement of the large stimulus package in the U.S., which improved the outlook of the U.S. economy while also sparking market concerns regarding inflation expectations in the U.S. Nevertheless, the Federal Reserve maintained that it would continue to pursue monetary easing and allow inflation to accelerate under the new monetary policy framework which now targets the average inflation. Between March 1 – 23, 2021, the exchange rate averaged 30.65 baht to the U.S. dollar, which was a 1.9 percent depreciation from the December 2020 average.

Chart 2.15 The baht depreciated against the U.S. dollar as the U.S. dollar strengthened on the back of the large economic stimulus package

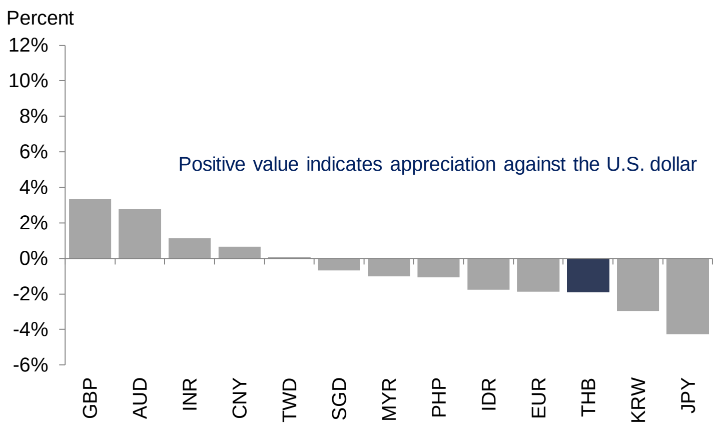
USDTHB, NEER, DXY



Source: Bank of Thailand, Bloomberg and Reuters (data as of 23 March 2021)

Between March 1 – 23, 2021, the **Nominal Effective Exchange Rate (NEER)** averaged 122.14, depreciating by 0.8 percent from the December 2020 average as the baht depreciated in line with most trading partner currencies (Chart 2.16). The preliminary **Real Effective Exchange Rate (REER)** in February 2021 depreciated by 0.5 percent from the December 2020 average.

Chart 2.16 The baht depreciated against the U.S. dollar in line with other regional currencies (average in Mar 2021 compared to average Dec 2020)



Source: Bank of Thailand and Reuters (data as of 23 March 2021)

Financial system stability remained vulnerable to the slow economic recovery, especially from the financial positions of households and businesses. The debt serviceability of the private sector must therefore be closely monitored, especially once the various support measures gradually phase out.

Financial system stability was still vulnerable to the slow economic recovery. The stability of financial institutions remained robust, as reflected by high level of capital buffers and reserves held by commercial banks as well as ample liquidity in the banking system. However, financial system stability was still fragile as financial positions and debt serviceability of households and businesses remained weak. Key risks to financial stability that must be monitored are as follows.

1. Fragile household balance sheets were a key risk to financial system stability. Household debt to GDP rose from 86.6 percent in the third quarter of 2020 to 89.3 percent in the fourth quarter of 2020. This was mainly due to contractions in GDP growth given that growth in household debt remained stable at 3.9 percent. It was expected that the household debt-to-GDP ratio as of end-2021 would not be larger than the ratio seen at the end of 2020 given that the economy would likely recover at around the same pace as household debt.

The debt serviceability of households must be closely monitored. While the share of stage-3 NPLs in consumer loans remained stable at 2.8 percent at the end of 2020 due to measures to assist retail borrowers and debt restructuring, Thailand's economic recovery was still subject to large degrees of uncertainties. In this regard, households would still need to rely on continued support from government measures to assist with their income recovery and debt serviceability. As such, the credit quality of consumer loans needs to be monitored closely as after the phase-out of government measures.

2. Financial positions of businesses continued to improve from the previous quarter, but vulnerabilities in some business sectors must be closely monitored, especially tourism-related businesses which have yet to recover from the first wave of COVID-19 infections whilst also being affected by the new wave. The resumption in economic activities after containment measures were relaxed combined with cost-reduction efforts on part of the businesses saw overall operating profit margin (OPM) improved from the previous quarter. The overall interest coverage ratio (ICR) also improved from the previous quarter, especially among manufacturing and petroleum-related businesses, partly due to exports growth driven by the global economic recovery. Nevertheless, the financial positions of SMEs and tourism-related services such as hotels, restaurant, and commerce were still fragile. While their OPM improved due to government measures to boost domestic demand, these businesses experienced losses and their debt serviceability deteriorated. In sum, the share of stage-3 NPLs of businesses overall remained stable at 3.2 percent as of end-2020, while the share of stage-3 NPLs of SMEs were still on the rise.

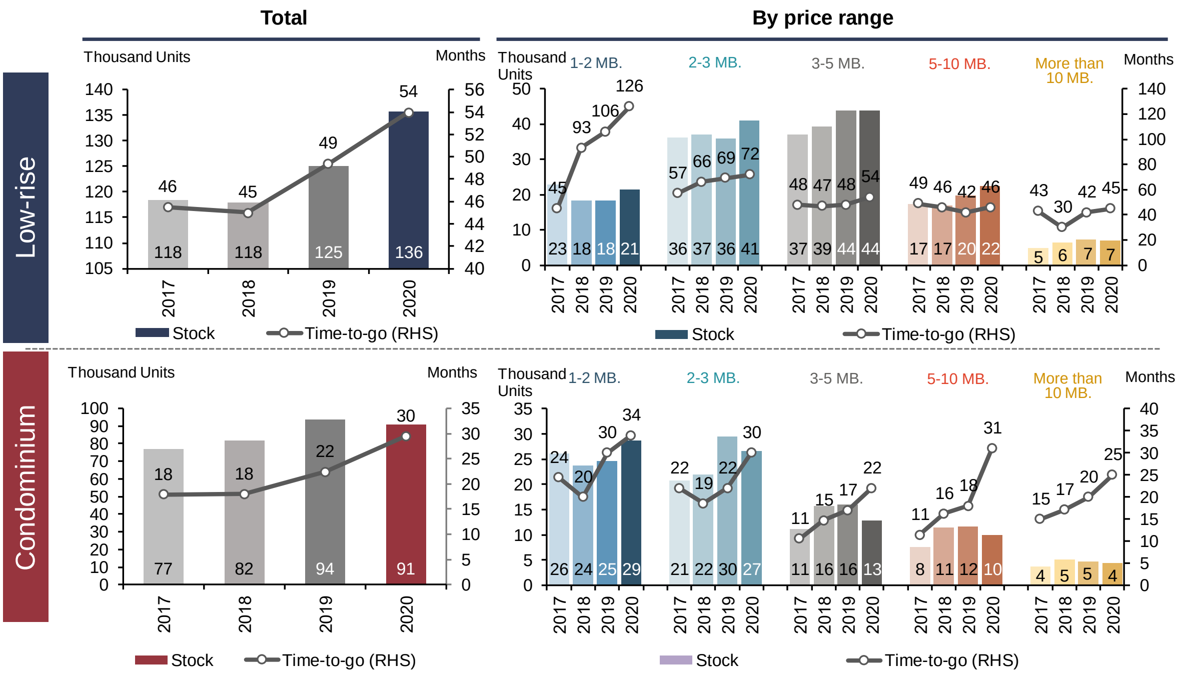
In the period ahead, the new wave of COVID-19 would exacerbate the uneven recovery across sectors and therefore the financial positions and debt serviceability of businesses must be closely monitored, especially for SMEs and tourism-related services.

3. The real estate market remained fragile given large housing inventories and the longer time-to-go in 2020, especially for low-rise properties and condominiums in the price range of 1-2 million baht. Despite higher demand for low-rise properties since the COVID-19 pandemic and the 10-percent contraction in number of new real estate projects in 2020, the inventory of low-rise properties in Bangkok and vicinities grew 8.6 percent and the overall time-to-go increased to 54 months across all price range. Meanwhile, inventory of condominiums in Bangkok and vicinities contracted by 3.2 percent in 2020 on account of the 61-percent contraction in the number of new real estate projects as well as price competition and sales promotion activities by developers in order to sell off their inventories. Nevertheless, the time-to-go for condominiums in Bangkok and vicinities still increased to 30 months with condominiums in the 1-2 million baht price range being most at risk due to a significant rise in inventory and time-to-go.

Risks in the real estate market stemmed from weak demand and financial positions of property developers who could face liquidity shortage. However, the demand for housing gradually recovered in the fourth quarter of 2020 as reflected by the 3.1 percent growth in new mortgage loans and less stringent credit underwriting standards of commercial banks. Overall, the recovery and risks in the real estate market still required close monitoring going forward.

Chart 2.17 The real estate market still faced risk from high levels of housing inventory and the longer time-to-go, especially among low-rises and 1-2 MB condominiums

Housing inventory and time-to-go in Bangkok and vicinities



Note: Time-to-go is defined as the duration for all housing inventory to be sold out based on the average monthly sale since the launch of the project, given no additional supply.

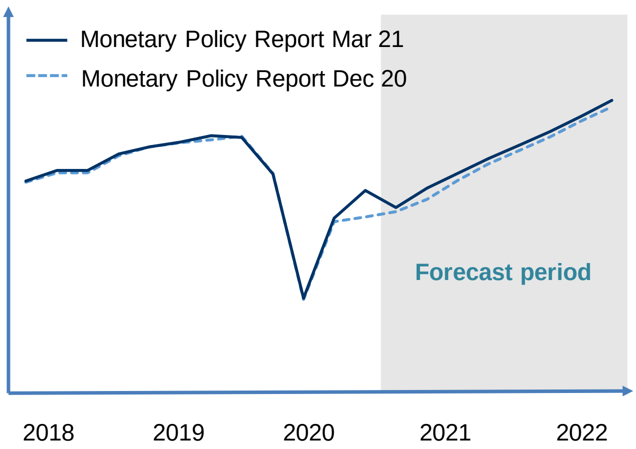
Source: AREA, calculated by Bank of Thailand

2.2 Outlook for the Thai Economy

Thailand's economic growth was projected to slow down slightly due to the new wave of COVID-19 infections in the beginning of 2021. Inflation was projected to rise in tandem with crude oil prices.

Chart 2.18 The Thai economy's recovery path was affected by the new wave of infections in the first quarter of 2021

Real GDP (seasonally adjusted, natural log)



The Committee projected that the Thai economy would grow 3.0 percent in 2021, which is lower than the 3.2 percent growth projected in the previous *Monetary Policy Report*. The downward revision to the growth forecast was attributable to the new wave of COVID-19 in the beginning of the year which was more severe than previously assessed (Chart 2.18), and lower foreign tourist figures from delays in Thailand's border re-opening and strict international travel restrictions especially those faced by Chinese tourists. However, the impact of the new wave of infections on the Thai economy was not as severe as the first wave thanks to less restrictive containment measures relative to last year, and the support from additional government measures to alleviate its impact (Box: *Government measures in response to COVID-19*). Additionally, Thailand's economic growth would benefit from the exports recovered in tandem with trading partner economies. Outturns of GDP in the fourth quarter of 2020 was also better than expected in many components. As such, the Thai economy was projected to slow down only slightly overall.

The Thai economy was projected to grow 4.7 percent in 2022, slightly lower than in the previous *Monetary Policy Report*. This downward revision was on account of lower government expenditure under the fiscal year 2022 annual budget and the reallocation of some spending under the Emergency Decree to transfer payments under to the remedy plan. Nevertheless, the anticipated rebound in foreign tourist figures once vaccination becomes more widespread in Thailand and abroad would support the return of Thailand's GDP to pre-pandemic levels in the second half of 2022.

Additional assumptions underpinning the latest growth forecasts are as follows. First, Thailand could relax the new containment measures and the situation could return to normal within the first half of 2021. Second, countries could achieve widespread vaccination around mid-2021. This would allow Thailand to reduce the length of mandatory quarantine upon arrival in Thailand — from 14 days to 10 days for those with "COVID-19 free certificate" and to 7 days for those with vaccine certificate — within the second quarter of 2021, and eventually remove the quarantine requirement altogether in the fourth quarter of 2021. Commercial flights would also be permitted to enter the country without requiring passengers to present vaccination certificate or COVID-19 test results within the second half of 2022.

Third, the government could effectively disburse budgeted expenditure under the Emergency Decree.

Headline inflation was projected to rise to 1.2 percent in 2021 on the back of higher crude oil prices. Headline inflation would temporarily spike in the second quarter of 2021 due to the low-base effect as crude oil prices were low in the same period last year. **Headline inflation was projected to be 1.0 percent in 2022.** Overall, headline inflation would return to the target range around mid-2021 and would remain close to the lower bound of the target throughout the forecast period.

Table 2.2 Forecast summary

Percent	2020*	2021	2022
GDP growth	-6.1	3.0 (3.2)	4.7 (4.8)
Headline inflation	-0.8	1.2 (1.0)	1.0 (1.0)
Core inflation	0.3	0.3 (0.3)	0.4 (0.4)

Note: * Outturn
( ) Monetary Policy Report December 2020
Sources: NESDC, Ministry of Commerce, Bank of Thailand's estimates

Summary of key forecast assumptions

- Trading partner economies were projected expand faster on account the large stimulus package in the U.S. as well as the clarity on stimulus measures in other countries such as the euro area, the UK, and Hong Kong. At the same time, the outturns of economic indicators in the fourth quarter of 2021 contracted less than expected in many countries. In the near-term, trading partner economies would be somewhat affected by the new wave of COVID-19 infections. In the long-run, trading partner economies would register robust growth through to 2022.
- The Federal Funds Rate was expected to remain low for an extended period of time. The rate was projected to be maintained in the 0.00-0.25 percent range throughout 2022.
- Regional currencies (excluding the Chinese yuan) were projected to appreciate throughout the forecast horizon. This was based on the appreciation seen in the beginning of 2021 due to better recovery prospects of Asian economies and improved investor confidence from the efficacy and distribution of vaccines.
- Dubai crude oil prices was revised up throughout the forecast horizon due to the significantly lower supply of oil in the short run, especially from the U.S. producers where oil production was affected by the winter storms. Meanwhile, the slowdown in investment by U.S. oil producers would hamper the production of shale oil. In the period ahead, crude oil prices would gradually pick up in line with demand and the global economic recovery.

- Farm income (excluding government support measures) for 2021 was revised up in accordance with the rise in prices of many agricultural products especially rubber, palm oil, and pork. Demand for rubber would increase from the production of rubber gloves and automobiles. Farm income growth would slow down in 2022 due to the high-base effect of agricultural prices in 2021.
- Public spending at current price was revised down due to (1) lower expenditure under the fiscal year 2022 budget due to lower projected revenue collection from the economic slowdown; (2) some expenditures under the Emergency Decree being carried over as transfer payments under the remedy plan; and (3) the likelihood that the effectiveness of budget disbursement could be lower than expected.

Table: Summary of forecast assumptions

Annual percentage change	2020*	2021	2022
Trading partners' GDP growth (% YoY)[1/]	-3.5	5.5 (4.8)	3.8 (3.1)
Fed funds rate (% at year end)	0.00 - 0.25	0.00 - 0.25 (0.00 - 0.25)	0.00 - 0.25 (0.00 - 0.25)
Regional currencies (excl. China) vis-à-vis the U.S. dollar (index)[2/]	157.1	150.6 (151.4)	149.6 (150.3)
Dubai crude oil price (U.S. dollar per barrel)	42	60.0 (47.3)	62.5 (51.5)
Farm income (% YoY)	2	1.6 (0.6)	2.7 (4.8)
Government consumption at current price (billion baht)[3/]	2,779	2,982 (3,016)	2,948 (3,116)
Public investment at current price (billion baht)[3/]	1,011	1,142 (1,156)	1,166 (1,174)

Notes: [1/] Weighted by each trading partner's share in Thailand's total exports
[2/] Increasing index represents depreciation, decreasing index represents appreciation
[3/] Assumption includes spending on infrastructure investment plans
* Outturns
( ) *Monetary Policy Report* December 2020

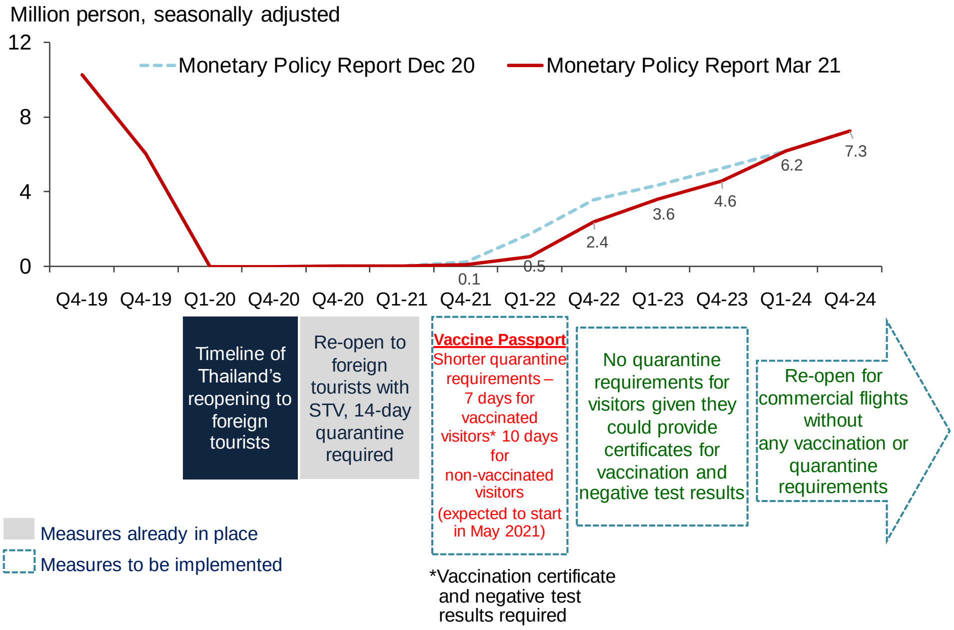
Merchandise exports was expected to register to higher growth on the back of the economic recovery among trading partners.

The value of Thai merchandise exports was projected to register higher growth in 2021 and 2022 driven by higher export prices following the increase in crude oil prices, as well as higher export quantity in tandem with trading partners' economic recovery. In particular, the large U.S. fiscal stimulus package would have positive effects on other trading partners and spur the recovery in global trade and investments. Meanwhile, the value of Thai gold exports would decline slightly due to the decline in gold prices. **The Committee assessed that the value of Thai merchandise exports would grow by 10.0 percent in 2021 and 6.3 percent in 2022.**

Exports of services would continue to contract and recover at a slow pace.

The tourism sector was projected to grow at a slower pace than previously assessed due to delays in the re-opening of Thailand's borders to foreign tourists as well as other negative factors such as the strict international travel restrictions in countries like China, delayed vaccination in some countries, and virus mutations in many countries, which would dampen tourism sentiment and confidence in international travel. **The Committee hence revised down the foreign tourist figures to 3.0 million in 2021 and 21.5 million in 2022** (Chart 2.19).

Chart 2.19 Foreign tourist figures would gradually improve in the fourth quarter of 2021



Current account surplus was projected to decline significantly in 2021 due to high import growth.

The current account balance was projected to register a surplus of 1.2 billion U.S. dollars in 2021, a large downward revision from the previous assessment. The decline was mainly due to low foreign tourist figures and higher import prices following the rise in crude oil prices. However, the decline in current account surplus in 2021 would be partly attributed to temporary factors namely (1) the large net gold imports during periods of declining gold prices; (2) higher freight costs from the shortage of containers which would likely be resolved in 2022. **The current account balance would record a larger surplus of approximately 25 billion U.S. dollars in 2022 following the recovery in foreign tourist figures.**

Private consumption growth would be higher than expected in the near term, but recovery was not yet broad-based.

Private consumption growth in 2021 would be stronger than previously assessed as private consumption in the fourth quarter of 2020 turned out stronger-than-expected due to car purchases by high-income households during the end-of-year sales promotion campaigns and the rollout of government measures that helped support a swift recovery in economic activities after containment measures were relaxed. However, while economic activities and household income gradually recovered amidst the new wave of COVID-19 infections in the beginning of the year, the economic recovery remained uneven across economic sectors. Labor income in export-related businesses continued to recover but that in tourism-related businesses was still affected by the low foreign tourist figures. This was reflected in labor income indicators which showed that income in the service sector remained low. Additionally, the income of those in the low-income group was still declining. **Against this backdrop, it was expected that private consumption growth would be modest in the period ahead.** Fragile household balance sheets due to elevated household debt along with weak labor market would be key drags to the recovery of private consumption going forward.

Private investment would gradually recover in tandem with merchandise exports.

Private investment would improve in 2021 from investment in machinery and equipment driven by international trade and better-than-expected private consumption growth. Meanwhile, public-private partnership (PPP) investment projects, particularly those in the Eastern Economic Corridor (EEC), were progressing with greater clarity such as the Laem Chabang Port (Phase 3) project. This helped support the overall investment sentiment in Thailand despite delays in some PPP projects such as the Orange Line MRT.

Headline inflation would be slightly higher due to rising crude oil prices and was expected to return to the lower bound of the target range around mid-2021.

The rise in headline inflation projection for this year would be primarily driven by supply-side factors, namely the increase in Dubai crude oil prices to an average of 60 U.S. dollars per barrel. Nevertheless, higher input costs from oil would have limited pass-through to prices in other categories as the government's measures to reduce electricity bills would help offset the higher energy costs, while subdued demand in the current economic environment would prevent businesses from raising prices. Headline inflation was expected to decline temporarily in the first quarter of 2021 because of government measures to reduce electricity and water bills before spiking temporarily in the second quarter of 2021 due to the low-base effect as Dubai crude oil prices were low at about 30 U.S. dollars per barrel in the same period last year. **Against this backdrop, the Committee kept core inflation projections unchanged at 0.3 percent in 2021 and 0.4 percent in 2022 and revised the headline inflation projections to 1.2 percent in 2021 and 1.0 percent in 2022.** The Committee assessed that headline inflation would return to the target range around mid-2021 and would remain close to the lower bound of the target throughout the forecast period.

Table 2.3 Forecasts of GDP and components

Annual percentage change	2020*	2021	2022
GDP growth	-6.1	3.0 (3.2)	4.7 (4.8)
Domestic demand	-1.6	4.6 (4.0)	2.0 (2.8)
Private consumption	-1.0	3.0 (2.8)	2.7 (3.0)
Private investment	-8.4	6.0 (4.9)	5.5 (5.0)
Government consumption	0.8	5.2 (5.1)	-3.1 (1.0)
Public investment	5.7	11.6 (7.9)	0.8 (0.2)
Exports of goods and services	-19.4	5.2 (3.6)	13.9 (12.3)
imports of goods and services	-13.3	9.2 (5.0)	7.5 (7.5)
Current account (billion, U.S. dollars)	16.3	1.2 (11.6)	25.0 (29.1)
Value of merchandise exports	-6.6	10.0 (5.7)	6.3 (5.0)
Value of merchandise imports	-13.5	15.2 (7.7)	6.8 (6.7)
Number of foreign tourists (million person)	6.7	3.0 (5.5)	21.5 (23.0)

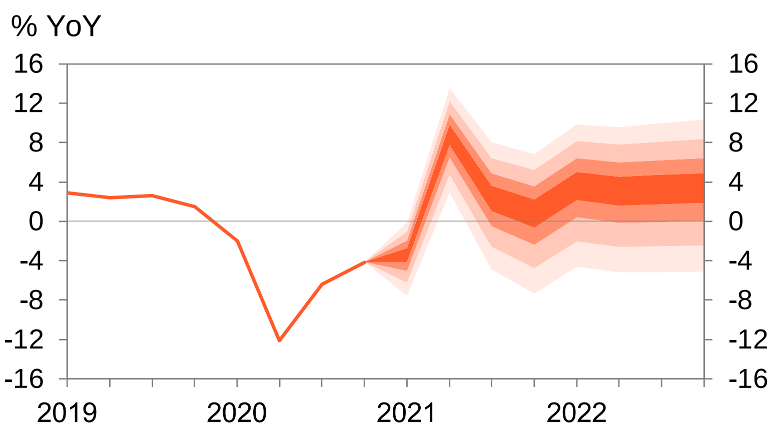
Note: *Outturns

( ) *Monetary Policy Report December* 2020

Thailand's economic outlook was still subject to uncertainties and downside. The recovery ahead would be largely dependent on the gradual re-opening of Thailand's border to foreign tourists.

The Committee assessed that Thailand's economic outlook was still subject to uncertainties and downside risks as reflected by the wide fan chart skewing to the downside (Chart 2.20). The level of uncertainty has somewhat receded recently given that the new wave of COVID-19 infections appeared to be manageable, and the efficacy of COVID-19 vaccines was in line with expectations. Nevertheless, **Thailand's economic growth could still underperform the baseline projection** due to the following factors. First, the re-opening of Thailand's borders to foreign tourists could be delayed further due to limitations in the COVID-19 vaccination such as the sufficiency of vaccine supply, concerns about the efficacy and side effects of vaccines, and the emergence of new COVID-19 strains (Box: *The recovery in foreign tourist arrivals – a key risk to Thailand's economic recovery*). Second, fiscal stimulus could be lower than expected if there are delays in the approval of projects under the Emergency Decree which would remain in effect until the third quarter of 2022. Third, balance sheets of businesses could deteriorate further, possibly triggering permanent business closure and lay-offs. This could result in scarring effects that would hinder the recovery of businesses and labor even after the pandemic subsided. Fourth, the default rate of business and household sectors could surge once credit relief measures are phased out.

Chart 2.20 Growth forecast

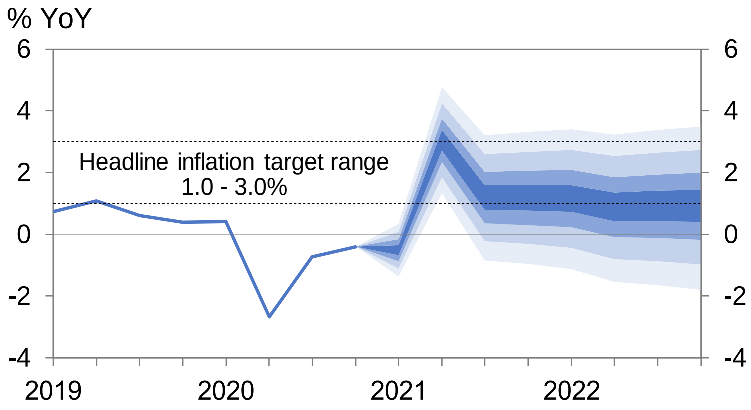


Note: Fan chart covers 90% of the probability distribution

Upside risks that could see Thailand's economic growth outperforming the baseline projection are as follows. First, herd immunity through vaccination might be achieved earlier than previously expected, thus bringing an earlier resolution to the COVID-19 outbreak abroad and allowing Thailand to re-open its borders to foreign tourists sooner. Second, the government might deploy additional stimulus measures to support domestic consumption and investment, while financial and credit relief measures implemented might be more effective than expected. Third, domestic demand growth might be stronger than expected as public investment in infrastructure projects and PPP projects could attract higher private investment. Fourth, multinational corporations could shift their orders and production base to Thailand more than expected.

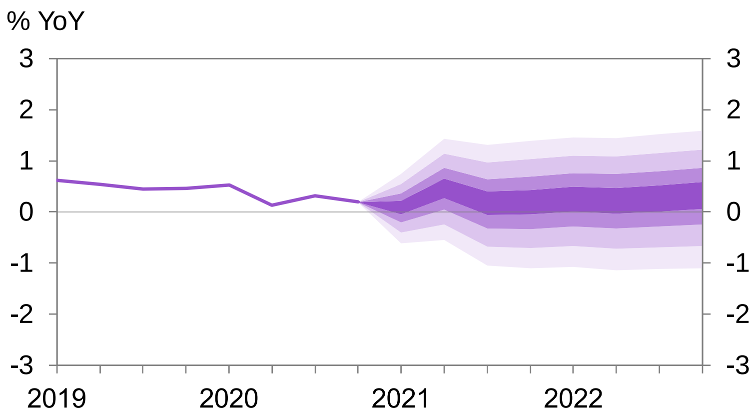
Headline inflation and core inflation could still underperform the baseline projections from the downside risks to the economic growth outlook (Chart 2.21 and 2.22).

Chart 2.21 Headline inflation forecast



Note: Fan chart covers 90% of the probability distribution

Chart 2.22 Core inflation forecast



Note: Fan chart covers 90% of the probability distribution

Government Measures in Response to COVID-19

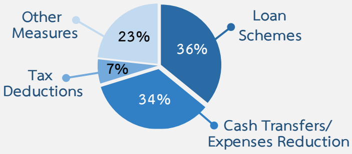
Government measures in response to the COVID–19 situation

From February 2020 to March 2021

Overview*

3.1 Trillion Baht (TB.)[1/]

(18.2% of 2019 GDP)



* Excluding debt restructuring, suspension of debt payment, credit guarantee, tax deferral

Phase I and II measures

(The Cabinet resolutions on March 10th and March 24th, 2020)

BOX : *Government relief measures to alleviate the impact of COVID-19* (*Monetary Policy Report March 2020*)

Emergency Decree Authorising the Ministry of Finance to Raise Loans to Solve Problems, to Remedy And Restore the Economy And Society as Affected by the Coronavirus Disease Pandemic, B.E. 2563 (2020)

(Effective April 19th, 2020)

Total borrowing shall not exceed 1 trillion baht under 3 plans as follows:

● Public Health Plan	■ Remedy Plan	▲ Restoration Plan
Max. amount 45 billion baht	Max. amount 600 billion baht (up from 555 billion baht)	Max. amount 355 billion baht (down from 400 billion baht)

Target groups: Households | Businesses | Households & Businesses

	Example of Measures in 2020	Budget (Billion Baht)	Example of Measures in 2021	Budget (Billion Baht)
Loan Schemes 1.1 TB. (6.5% of GDP)	BOT soft loan for SMEs with 57 billion baht guaranteed by Thai Credit Guarantee Corporation	500[2/]	Soft loan facility for businesses (BOT)	250
	Jump Start Credit/New Gen Hug Home Province/ Sufficient Loan (BAAC)	170	Debt restructuring through Asset Warehousing Scheme with Buy-Back Options (BOT)	100
	SMEs One Loan Scheme (SME Bank)	5	Soft loan for tourism-related businesses, using property as collateral (GSB)	10
	Investment and Production Efficiency Enhancement Credit Scheme (EXIM Bank)	5		
Cash Transfers/ Expenses Reduction 1.1 TB. (6.3% of GDP)	■ No One Left Behind : Cash transfers for workers not registered in the social security system (16 million people)	240[3/]	■ We Win : cash transfers for state welfare card holders and workers not registered in the social security system (31 million people)	210
	■ Cash transfers to support 10 million people in agriculture sectors	150	■ Section 33 We Love Each Other : cash transfers for employees under the social security system (9 million people)	37
	■ Cash transfers for vulnerable groups, state welfare card holders, and employees under section 33 who contribute to the Social Security Fund for less than 6 months[4/]	25	■ Additional allowance on food and necessities for state welfare card holders phase 2	21
	■ Additional allowance on food and necessities for state welfare card holders phase 1	21	▲ Half-Half phase 2 for 15 million people (10 million people in the first phase and then additional 5 million)	23
	▲ Half-Half phase 1 for 10 million people	30	▲ Subsidy on package tour from a domestic tour agency	5
	▲ The employment promotion program for new graduates by the public and private sectors (Co-Payment)	19	Reduction of utility expenses, including water and electricity expenses	12
	▲ We Travel Together : subsidy on hotel accommodations, airline tickets, and vouchers	15		
	<u>Social Security System</u>		<u>Social Security System</u>	
	Increasing benefits in case of unemployment due to the effect of the economic crisis	29[5/]	Increasing benefits in case of unemployment due to the effect of the economic crisis	33[6/]
	Reduction of required contributions to the Social Security Fund (Sep-Nov 20)	24	Reduction of required contributions to the Social Security Fund (Jan-Mar 21)	23
	Benefits in case of unemployment due to the pandemic 62% of daily wage	15	Benefits in case of unemployment due to the pandemic 50% of daily wage	5
Tax Deductions 0.2 TB. (1.2% of GDP)	Reduction of property tax by 90% for the year 2020	35	Reduction of property tax by 90% for the year 2021	36
	Shop and Payback : tax deduction of up to 30,000 baht for purchasing selected products and services	14	Reduction of housing transfer and mortgage fees	6
	Additional tax deduction for domestic seminars and hotel renovation expenses	3		
Other Measures 0.7 TB. (4.2% of GDP)	Corporate Bond Stabilization Fund (BSF)	400	Amount under Emergency Decree yet to be utilised	246
	Purchasing of 63 million COVID-19 vaccine doses	14	Thais Have Jobs : platform for recruiting and providing training programs	
	● Improving the healthcare system to alleviate the impact of COVID–19 in the provincial area	8	Acceleration of budget disbursement for fiscal year 2021 for seminar and training	

<u>Note</u> : 1/ Including measures to alleviate the impact of COVID-19 approved or acknowledged by the Cabinet, or approved by Ministry of Energy, or presented on *No One Left Behind – Financial Measures website* from February 1st, 2020 to March 23rd, 2021. These measures are funded by (1) Emergency Decree (2) The Bank of Thailand (3) Specialised Financial Institutions (4) The Social Security System (5) State-owned Enterprises (6) Central fund in government budget, or revenue forgone of public sector 2/ BOT soft loan for SMEs will expire in April 2021, the remaining of the soft loan 350 billion baht will be used for (1) Soft loan facility for businesses and (2) Debt restructuring through Asset Warehousing Scheme with Buy-Back Options, approved by the Cabinet on March 23rd, 2021 3/ Project worths of 240 billion baht, from Emergency Decree 170 billion baht, and central fund 70 billion baht 4/ Employees under section 33 who contribute to the Social Security Fund for less than 6 months are unable to apply for benefits in case of unemployment due to the pandemic 5/ Actual amount in 2020 6/ Expected amount in 2021

<u>Source</u> : (1) The Cabinet Resolution from February 2020 to March 2021 (2) The Social Security Office (3) https://gfa.or.th/sfi (*No One Left Behind – Financial Measures*) by The Ministry of Finance (4) http://thaime.nesdc.go.th/ by The Office of the National Economic and Social Development Council

The recovery in foreign tourist arrivals – a key risk to Thailand's economic recovery

Thailand's economic recovery in the period ahead remained highly uncertain and would depend largely on the recovery in foreign tourist arrivals. This is because income from spending by foreign tourists accounts for 11 percent of GDP and tourism-related businesses accounts for 20 percent of total employment in Thailand.

If the COVID-19 pandemic is prolonged further by additional wave of infections and virus mutations, the recovery in foreign tourist arrivals might be slower than expected. The Committee assessed 3 recovery scenarios for the Thai economy based around the efficacy of COVID-19 vaccines and the duration of achieving a widespread coverage of COVID-19 vaccination, both of which would determine the pace of Thailand's border re-opening, tourism sentiment, and overall economic activities. Foreign tourist figures in 2021 is expected to could be between 0.1 million to 3 million, which would result in GDP growth ranging from -1.7 to 3.0 percent (Chart 1). The details of each scenario are as follows.

Chart 1 Foreign tourist figures and GDP growth projections under the 3 scenarios

	1. Baseline		2. Worse case (3rd wave of COVID-19 infections)		3. Worst case (A virulent virus mutation)	
	2021	2022	2021	2022	2021	2022
Foreign tourist figures (million persons)	3.0	21.5	0.1	10.0	0.1	0.1
Economic growth (percent)	3.0	4.7	- 0.5	3.5	- 1.7	- 0.3

Source: forecast by Bank of Thailand

1. In the baseline, foreign tourist figures in 2021 would be 3.0 million and GDP would grow 3.0 percent. In this scenario, a coverage of vaccination in both Thailand and abroad is effective and well-underway in 2021. The government can relax quarantine requirements for foreign tourists arriving in Thailand starting from the second quarter and provide exemptions for those that have been vaccinated and possess certificates showing that they are COVID-19 free starting from the fourth quarter. For 2022, it is expected that the proportion of people who have been vaccinated in both Thailand and abroad would be high enough to reopen to foreign visitors without requiring vaccine certificates or negative COVID-19 test results within the second half of the year. Foreign tourist figures in 2022 are expected to be 21.5 million and GDP would grow 4.7 percent.

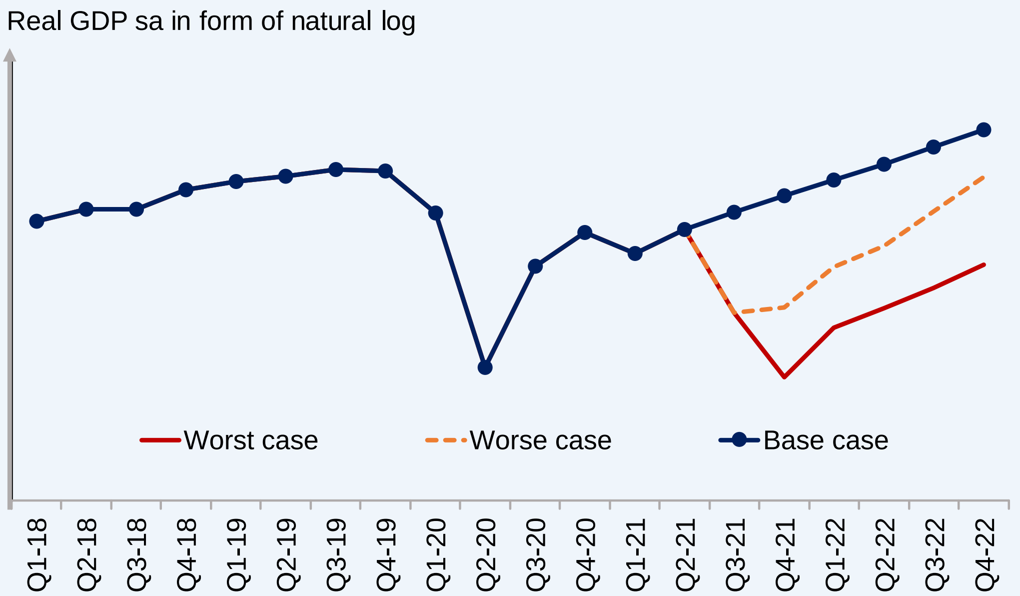
2. In the worse case, foreign tourist figures would not recover through to end-2021 and GDP would continue to contract from 2020. The assumptions for this scenario are as follows. First, there is a third wave of COVID-19 infections in Thailand in the latter half of 2021 while vaccine procurement and distribution are also delayed. As such, the conditions-free re-opening of Thailand's borders is pushed back even further. Second, international travel restrictions and domestic travel promotion campaigns in China could impact the recovery in the number of Chinese tourists who have been the main source of income for Thailand's tourism industry. Third, virus mutations in many countries hinder the effectiveness of vaccine and thus affecting demand for tourism. **In this scenario, foreign tourist figures**

would be 0.1 million in 2021 and 10 million in 2022 and the Thai economy would contract by 0.5 percent in 2021 before resuming positive growth of 3.5 percent in 2022.

3. In the worst case, foreign tourist figures would recover significantly slower than the baseline scenario. This is under the assumption that the mutation of the virus becomes more severe across countries, rendering vaccines ineffective in reducing hospitalization rates and deaths. New vaccines are developed and starts being distributed in early-2023. The re-opening of Thailand's border to foreign tourists would be pushed back to the latter half of 2023. Delays in vaccine development would also impact Thailand's economic growth through exports given that trading partners' growth would slow down from strict containment measures and affect the supply chain. **In this scenario, foreign tourist figures would be 0.1 million for both 2021 and 2022, and the Thai economy would contract 1.7 percent in 2021 and 0.3 percent in 2022**. It is important to note that the Bank of Thailand's assessment of the worst case scenario was intended to evaluate the crisis situation and potential impact on financial system stability, as well as to prepare contingency measures as needed.

The situation remains highly uncertain and there are many factors that would affect the recovery in tourism. The Committee would closely monitor the recovery in foreign tourist figures given its significant implications for Thailand's economic recovery going forward (Chart 2). In particular, the Committee will monitor vaccination progress in Thailand and abroad, the virus mutation of COVID-19 and the efficacy of vaccines, infection rates in Thailand and abroad, and progress in re-opening Thailand's borders to foreign tourists to re-evaluate the different recovery scenarios periodically.

Chart 2 Three scenarios of Thai economic growth projection



Sorce: Projected by the Bank of Thailand

3. Monetary Policy Decision

The MPC maintained the policy rate at 0.50 percent and assessed that the continued low policy rate would help support economic recovery, which was still subject to uncertainties and risks. Therefore, the limited policy space should be preserved for the appropriate and most effective timing.

At the meetings on February 3 and March 24, 2021, the Committee voted unanimously to maintain the policy rate at 0.50 percent. The Committee assessed that the Thai economy continued to expand despite the impact of the new wave of COVID-19 infections. However, the impact of the new wave was less severe compared to the first outbreak due to less strict containment measures which amounted to a relatively smaller economic impact. In addition, the timely implementation of fiscal stimulus measures and export recovery in line with trading partner economies' growth helped the economy to expand. Nevertheless, the Thai economy would grow at a slower pace in both 2020 and 2021 compared to the projections from December 2020. This is due to the impact of the new wave of COVID-19 infections, the lower foreign tourist figures given the gradual pace of border re-openings, virus mutations in many countries, and the reduction in the fiscal year 2022 budget from lower projected revenue collection. Moreover, the economic recovery remains highly uncertain and uneven across economic sectors. The financial system remained sound, but vulnerabilities increased in the business and household sectors. This is especially true for SMEs and low-income households that have yet to recover from the impact of the first wave of COVID-19 infections and were further affected by the new wave of infections, which resulted in declining labor income and increasing numbers of unemployed and underemployed workers. Headline inflation would return to the target range around mid-2021 and remain close to the lower bound of the target range throughout the forecast period. Medium-term inflation expectations remained well anchored within the target range. The Committee therefore assessed that the Thai economy still needed support from the continued low policy rate given that the recovery remained subject to high certainties and risks, and thus the limited policy space should be preserved for the appropriate and most effective timing.

In determining the appropriate course of monetary policy, details on the key assessment are as follow.

The continuity of government measures and policy coordination among government agencies would be critical in supporting economic recovery going forward.

Thailand's economic outlook remained subject to high degree of uncertainties. There is still the possibility that the COVID-19 pandemic could be prolonged and complicated by the virus mutations, which could hinder the efficacy of vaccines and impact the economic recovery especially for the tourism sector. There is also the risk that disbursement of expenditure under the new relief plan of the Emergency Decree could be lower than expected. Furthermore, Thailand's economic recovery would also take a long time to gain strong footing and remains uneven across business sectors. **The Committee viewed that the continuity of government measures and policy coordination among government agencies would be critical to the economic recovery going forward.** So far, recent fiscal measures that were swiftly implemented in response to the new wave of

COVID-19 infections played vital roles in supporting the economy. Looking ahead, the government should prepare a policy package of financial and fiscal measures that would ensure continuity of policy support and addresses the relevant risks in each period. The government should also devise additional measures for the worst-case scenarios as needed to mitigate the adverse economic impacts and prevent scarring effects. It is also important that additional fiscal measures being deployed to ensure the sufficiency and the continuity of fiscal impulse during the recovery would not contribute significant risks to medium-term fiscal sustainability (**Box:** *Preparing for risks to Thailand's economic outlook*).

The economic recovery has become more uneven across economic sectors and thus it would be necessary to provide timely, well-targeted assistance through the new financial rehabilitation measures to assist businesses affected by the pandemic and credit relief measures for retail borrowers.

The new wave of COVID-19 infections exacerbated the fragile balance sheets of businesses and households and the uneven economic recovery across sectors, especially SMEs, tourism-related services, and low-income households. For businesses, this new wave of COVID-19 infections would result in lower income and a more fragile balance sheet position, especially SMEs and service businesses which have yet to recover from the first wave of infections. Default risks and credit risks of businesses could increase to a point where it could affect access to credit even if there is ample liquidity in the financial system.

The Committee saw the need to expedite well-targeted financial assistance and credit relief through the implementation of the new financial rehabilitation measures to restore businesses affected by the COVID-19 pandemic, proposed by the Bank of Thailand, the Ministry of Finance, and other related parties[7/]. These measures would ensure that the large amount of liquidity in the financial system is channeled to the target group in a more effective, flexible, and inclusive manner to meet the varying needs of each business sectors and support the economic recovery in the period ahead. These measures will provide credit relief for viable businesses that were severely affected by the pandemic and would take a long time to recovery, through the new soft loan facility and the asset warehousing program (**Box:** *Financial rehabilitation measures to support and restore viable businesses*).

Low-income households have yet to recover from the previous wave of COVID-19 infections and were further affected by the new wave of infections, resulting in further declines in household income. The numbers of unemployed and underemployed workers are on the rise, especially those who are freelance workers, daily hires outside the agricultural sector, and hotel workers. **The Committee was concerned that the labor market remained fragile, and that household debt remained elevated and might further deteriorate in credit quality. Thus, the Committee saw the need to closely monitor labor market developments and household credit quality, while also expediting measures to assist retail borrowers** through the Debt Clinic, the debt restructuring programs, the improved calculations of default interest rate, and debt mediation.

[7/] BOT Press Release "Financial Rehabilitation measures to support business recovery post COVID-19" (March 23, 2021)

The Committee also saw the need to provide credit relief for businesses and household as well as to strengthen their financial positions while financial conditions are still accommodative. Doing so would support the economic recovery and prepare the economy for the uncertainties ahead.

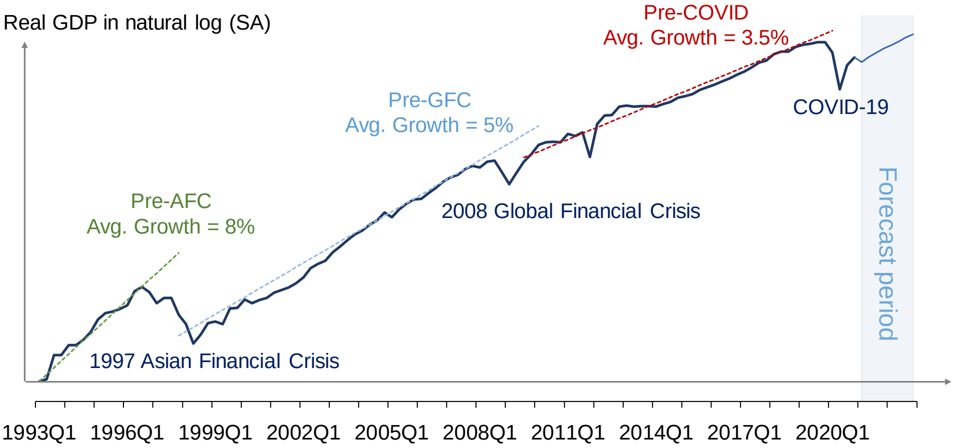
Long-term Thai government bond yields increased in tandem with U.S. treasury yields over the recent period, although this had limited impact on domestic financial conditions. Meanwhile, the baht depreciated in line with other currencies in the region.

Long-term Thai government bond yields increased in tandem with U.S. Treasury yields over the recent period. Nevertheless, this had limited impact on domestic financial conditions and financing costs of the private sector and households, given that most still obtain financing primarily from banks. Financial markets were also able to adjust accordingly through market mechanisms and function as normal. Meanwhile, the baht depreciated against the U.S. dollar, in line with other regional currencies. Despite the pressure on the baht having abated due to the significant reduction in Thailand's current account surplus in 2021, the Committee would closely monitor developments in the FX market and capital flows as well as their implications on the economic recovery going forward. The Committee also considers the need to deploy additional measures as deemed appropriate to ensure that the exchange rate does not impede economic recovery. The Committee will continue to expedite the new FX ecosystem in Thailand, which would directly address the structural challenges in Thailand's foreign exchange market and facilitate more balanced capital flows.

Economic structural reform policies would foster a sustainable economic recovery and uplift long-term growth potential.

The Committee assessed that Thailand's growth potential has been declining after each subsequent crisis. The COVID-19 pandemic would impact long-term growth potential (Chart 3.1) and exacerbate structural challenges of the Thai economy – aging population, income inequality, and excess capacity. Thus, the public sector must push forth structural reform policies that are relevant to the post-COVID world. This include labor upskilling and reskilling, mitigating excess capacity for many businesses waiting to be revitalized or transitioned into new business models through asset warehousing, and developing fundamental infrastructure to support the digital economy. These efforts will help foster a sustainable economic recovery and uplift long-term growth potential.

Chart 3.1 Thailand's growth potential has been declining after each subsequent crisis, with COVID-19 leaving scarring effects on long-term growth potential.



Source : Office of the National Economic and Social Development Council and Calculated by Bank of Thailand

The Committee viewed that the public sector should focus on measures to restore the economy and finance key infrastructure projects. The approval and disbursement of remaining expenditure under the relief plan of the Emergency Decree should be expedited to ensure continuity of fiscal impulse and help uplift growth potential. The government should also implement revenue and expenditure reforms in order to enhance the effectiveness of fiscal policies as well as promote long-term fiscal sustainability.

The Committee continued to put emphasis on supporting economic recovery, and stand ready to use additional appropriate monetary policy tools if necessary.

Under the monetary policy framework with objectives of maintaining price stability, supporting sustainable and full-potential economic growth, and preserving financial stability, the Committee continued to place great emphasis on supporting the economic recovery. To formulate the appropriate course of policy action going forward, the Committee will monitor the adequacy of government measures, fragility in the labor market, balance sheets of businesses and households, and the various risks namely the COVID-19 outbreak in Thailand and abroad as well as the progress in re-opening borders to foreign tourists. The Committee would stand ready to use additional appropriate monetary policy tools if necessary.

Preparing for risks to Thailand's economic outlook

In the period ahead, the Thai economy would gain tailwind from additional fiscal and financial measures but also faces headwinds from the outbreak of COVID-19 in Thailand and abroad. A key emerging risk is the more virulent virus mutations, which could hinder the efficacy of the vaccines and impact the economic recovery, especially in the tourism sector. The uncertainties posed by those risks warranted close monitoring by the government. **The continuity of government measures and policy coordination among government agencies would be critical to the economic recovery. Fiscal policy, in particular, will play important roles in shoring up growth. In addition, the government should also devise additional measures for the worst-case scenario if the situation takes an unexpected turn.**

Chart 1 The Thai economy gained additional tailwind from fiscal and financial measures but remained subject to risks stemming from the mutations of COVID-19.

Note: Change from the December 2020 *Monetary Policy Report* in green.

<table>
<tr><th></th><th>H1 - 2021</th><th>H2 - 2021</th><th>2022</th></tr>
<tr><td rowspan="2">Tailwinds</td><td rowspan="2">- Additional measures under the Emergency Decree ("We win" financial aid, "Section 33 We Love Each Other" financial aid, "Tour Tiew Thai" subsidy)
- The new soft loan facility and the asset warehousing program
- Relaxation of containment measures
- Trading partners' economic recovery</td><td>- Widespread vaccination abroad and in Thailand
- Foreign tourists are able to travel to Thailand without being subject to quarantine requirements, but vaccination and COVID-19 test certificates are required.</td><td>- Thailand and other countries achieve herd immunity from sufficient vaccination.
- Re-opening for commercial flights into Thailand and foreign tourists are able to enter the country without the need to present vaccination and COVID-19 test certificates.</td></tr>
<tr><td colspan="2">- Good progress in infrastructure investment and public-private partnership (PPP) projects, especially in the EEC, improves the investment climate in Thailand.</td></tr>
<tr><td>Headwinds</td><td>- New wave of COVID-19 infections in Thailand impact the economic recovery
- Containment measures abroad are prolonged</td><td>- Credit relief and other financial measures expires at the end of 2021. The government will re-assess the situation thoroughly.</td><td>- Stimulus support from measures under the Emergency Decree phases out</td></tr>
<tr><td>Risks</td><td>- Financial institutions remain cautious in extending credit, resulting in less liquidity being channeled to businesses than previously expected.
- The re-opening of Thailand's borders is delayed due to concerns over the mutations of COVID-19 and vaccination delays in both Thailand and abroad.</td><td>- The efficacy and coverage of COVID-19 vaccines remain uncertain
- The more virulent virus mutations</td><td>- Tourism could change in the post-COVID world, resulting in lower-than-expected foreign tourist figures.</td></tr>
</table>

The important tailwinds are the additional fiscal measures rolled out after the new wave of COVID-19 and the return of foreign tourist arrival towards end-2021.

In the first half of 2021, the important tailwinds are the additional fiscal measures rolled out after the new wave of COVID-19 (i.e. "We win" financial aid, "Section 33 We Love Each Other" financial aid, "Tour Tiew Thai" subsidy) and **the new financial rehabilitation measures**. The new financial rehabilitation measures include the new soft loan facility targeted at supporting high-potential SMEs that were adversely affected by the pandemic and would take time to recover, and the asset warehousing program aimed to reduce the debt burden and provide another opportunity to continue business operations. **Towards the end of 2021, the gradual re-opening of Thailand's borders to foreign tourists without quarantine requirements** would lead to an increase in foreign tourist figures and help tourism-related services recover. However, vaccination and infection test certificates are still required.

Key risks to the growth outlook are the delays in the re-opening of Thailand's borders due to concerns over the mutations of COVID-19 and delayed vaccination in both Thailand and abroad.

The growth outlook is subject to additional risks from potential delays in the re-opening of Thailand's borders due to concerns over the mutations of COVID-19 and delayed vaccination in both Thailand and abroad. **Furthermore, should the virulent mutations of COVID-19 could lead to vaccine inefficacy that requires new vaccines to be developed, the gradual re-opening of Thailand's borders to foreign tourists might be delayed further** (**Box:** *The recovery in foreign tourist arrivals – a key risk to Thailand's economic recovery*)

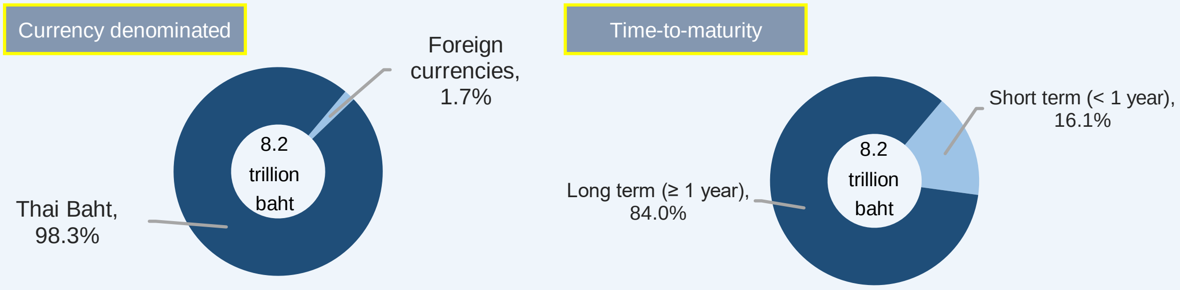
Government measures will be critical to supporting Thailand's economic recovery, which remained highly uncertain and requires sufficient and continued support from fiscal and financial measures.

Thailand's growth outlook remained highly uncertain. The economic recovery ahead would require sufficient and continued support from fiscal and financial measures in order to provide relief measures and support economic recovery. Additional fiscal measures did not pose significant risks to medium-term fiscal sustainability due to several factors. **First, it is possible the public debt to GDP ratio could decline if GDP outgrows public debt.** This was reflected by the experience during the 1997 crisis whereby public debt to GDP increased to 57.8 percent in 2000 before declining to 47.5 percent over the next 3 years as the economy rebounded strongly. Continuous, well-targeted, and effective fiscal measures will help alleviate the short-run growth impact and bring the economy back on a strong footing. **Second, risks related to the composition of public debt remained low.** Thailand's public debt consisted mostly of long-term debt with an average time-to-maturity of about 10 years and was mostly denominated in baht (Chart 2). **Third, borrowing costs for the government remained low** in line with the trajectory of the policy rate and were lower than the projected GDP growth. Yields on the 10-year Thai government bonds were also lower than those of other emerging markets in the region[8/].

8/ As of March 23, 2021, the 10-year government bond yields for Thailand, Philippines, Malaysia, and Indonesia were 1.9 percent, 2.8 percent, 3.4 percent, and 6.7 percent, respectively. (Source: Thai Bond Market Association, Bloomberg)

Additional financial measures being rolled out to mitigate risks should ensure that the assistance provided to those affected are more inclusive and should be flexible enough that the conditions could adapt to the prevailing situation at the time and accommodate the worst-case scenarios. To that end, the Bank of Thailand and the Ministry of Finance announced new financial measures[9/] in response to the new wave of COVID-19 infections. The legal text of these measures only includes broad principles so as to leave enough flexibility to make further adjustments in the future. **The Bank of Thailand and the Ministry of Finance will continue to monitor and periodically assess the effectiveness of the various measures to make refinements as needed to suit the evolving situation.** The Committee has also preserved the limited policy space in order to act at the appropriate and most effective timing.

Chart 2 Thailand's public debt structure



Source: Public Debt Management Office, data as of end-January 2021

The continuity of government measures and policy coordination among government agencies will be critical to Thailand's economic recovery. While **monetary policy** remained accommodative, **financial measures and credit relief measures** should channel liquidity to those affected in a targeted and timely manner in order to facilitate economic recovery going forward. **Fiscal measures** should continue to support the economy by maintaining the fiscal impulse and devising additional measures for the worst-case scenario. **Supply-side policies** to support new business models and uplift labor skills would also foster a stronger and more sustainable economic recovery.

[9/] Joint press release "Financial Rehabilitation measures to support business recovery post-COVID-19" (March 23, 2021)

The new financial rehabilitation measures to support business recovery post-COVID-19

Existing measures to alleviate short-term impacts of the pandemic might not be suitable nor sufficient to support Thailand's economic recovery in the period ahead, given that the outbreak could be prolonged and is highly uncertain.

The first wave of COVID-19 in 2019 resulted in sharp growth contractions due to the strict containment measures and businesses, especially SMEs, faced liquidity problems. At the time, the government viewed that the impact would be severe but short-lived. As such, the government announced the **soft loan[10/] program to provide liquidity assistance to affected SMEs and offered a blanket 6-month debt moratorium for SMEs with a credit line not exceeding 100 million baht.**

The timely implementation of financial measures would help alleviate the impact of the new wave of infections on Thailand's economic recovery and preserve Thailand's longer-term growth potential.

The new wave of COVID-19 exacerbated fragility in balance sheet positions of high-potential businesses, especially those that have yet to recover from the first wave. If the government does not provide timely financial assistance to these businesses, the economic recovery process could be drawn out and become more uneven across economic sectors (K-shaped recovery), affecting Thailand's growth potential over the long-term. **Looking ahead, financial institutions would likely assess higher credit risks given that the outbreak could be prolonged and remain highly uncertain. This could affect access to credit, especially for SMEs, even though there is ample liquidity in the financial system.** Without assistance from the government, businesses might face temporary liquidity shortages that could affect their balance sheets to the extent that could lead to closure or employee lay-offs. This in turn would impact labor income and exacerbate the fragility of household balance sheets. In addition, this could further lead to widespread defaults, impacting the balance sheet positions and credit intermediation functions of financial institutions and overall financial stability.

The new financial rehabilitation measures were announced to channel liquidity to target groups in a more effective, flexible, and inclusive manner depending on the needs of each business sector.

After consultation with all stakeholders, both financial institutions and the private sector, the Bank of Thailand and the Ministry of Finance jointly announced new financial rehabilitation measures[11/] to help Thai businesses sustain their operations and hiring as well as restore and adjust their business models to the post-COVID environment. The measures focused on (1) achieving more effective **channeling of liquidity to the target groups amidst heightened credit risks**; (2) having greater **flexibility** by including only the broader principles within the legal text so as to give room for the measures to be adjusted to better serve the circumstances in the future; and (3) being **more inclusive** so as to meet the varying needs of different business sectors, especially those that were heavily impacted by the pandemic and would take long to recover. The new financial

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10/ Emergency on Financial Assistance to Small and Medium-sized Enterprises affected by Coronavirus Pandemic (April 19, 2020)

11/ Joint Press Release "Financial Rehabilitation measures to support business recovery post-COVID-19" (March 23, 2021) rehabilitation measures consist of (1) a new soft loan facility and (2) the asset warehousing program which will assist households and businesses in a more inclusive manner (Chart 1).

Chart 1 The public sector expedited the soft loans and asset warehousing measures to make the financial measures more comprehensive

Details of the financial rehabilitation measures are as follows[12/]:

1. Soft loan facility for businesses (totaling 250 billion baht) to support high-potential SMEs affected by the pandemic. This measure addresses the limitations of the previous soft loan measure by expanding the pool of eligible borrowers to include new borrowers, expanding the loan tenor, expanding the credit limit, amending the interest rates to facilitate lending, and expanding the pool of eligible collateral assets to include higher-risk assets. In addition, the government will waive or reduce related taxes and fees, while the Bank of Thailand will offer low-cost funding to financial institutions to channel credit to businesses in need. **These efforts will help prevent scarring effects and foster a swifter economic recovery going forward.**

2. The Asset Warehousing program (totaling 100 billion baht) provides a standardized debt restructuring program with buy-back options for high-potential businesses that were adversely affected by the pandemic and would take time to recover. These businesses must also possess high high-potential business models and collaterals that could be transferred in order to be eligible for temporary debt relief. The program aims to temporarily reduce the principal payment and interest burden for businesses that would take time to recover, especially those in tourism-related services. Businesses whose assets have been transferred as collateral may lease their assets from financial institutions to continue business operations which would help sustain hiring in the short-term. Some businesses may opt to temporarily close their business operations, which would reduce excess capacity and reduce the risk of asset fire sales. Businesses also have the rights to repurchase their collaterals from the financial institutions in order to resume business operations once the pandemic subsides. In support of the program, the government can waive or reduce taxes and related fees, while the Bank of Thailand will offer low-cost funding to support the transfer of assets by financial institutions.

[12/] Summary table of financial rehabilitation measures to support business recovery post-COVID-19 (March 23, 2021) (Thai language only)

The new financial rehabilitation measures were part of the comprehensive package of financial and fiscal measures to assist all borrowers affected by the COVID-19 pandemic.

Prior to March 23, 2021, when the financial rehabilitation measures aimed at SMEs borrowers were announced, **the Bank of Thailand and the Ministry of Finance have implemented various measures to assist all borrowers.** Previous measures aimed at assisting retail and business borrowers are as follows.

1. Measures to assist retail borrowers: The government provided income assistance to retail borrowers that faced temporary liquidity problems through programs such as "We Win" financial aid, "Section 33 We Love Each Other" financial aid, and the Half-Half Co-Payment scheme as well as soft loans from specialized financial institutions for working capital and liquidity purposes. The Bank of Thailand also implemented measures to assist existing borrowers such as the Debt Clinic, Debt Exit Fast Lane, Debt Restructuring Programs and Debt Mediation.

2. Measures to assist business borrowers: The government continued to implement measures to support financial institutions in providing relief to business borrowers, both SMEs and large corporates, especially through expediting the debt restructuring process. In addition, the government has set up the Corporate Bond Stabilization Fund (BSF) to provide liquidity backstop to support financing activities in the bond market. So far, businesses have yet to apply for assistance under the BSF as the corporate bond market was still able to function as normal. Nevertheless, the BSF was regarded as an important contingency for the worst-case scenario.

Thailand's monetary policy formulation process: "Thorough thinking and clear communication"

Being able to think thoroughly through the many considerations before arriving at the policy decision, and to communicate the decision and respond to questions posed by citizens in a transparent manner ("Thorough Thinking and Clear Communication") is the heart of the monetary policy formulation process. Doing so will align the public's understanding with that of the policymakers and foster confidence among citizens and businesses, enabling them to accurately forecast the economic outlook and adapt accordingly.

The Bank of Thailand's Monetary Policy Committee (MPC) is made up of members from diverse backgrounds to ensure that the policy decision made have considered views from a wide range of perspectives. In the present arrangement, the MPC comprise 7 members – 3 ex-officio members from the Bank of Thailand and 4 external members who have extensive experience and expertise in the field of macroeconomics and finance. External members have a fixed term of 3 years and cannot serve more than two consecutive terms.

The MPC meets regularly 8 times a year to formulate the appropriate course of monetary policy actions. The schedule of the MPC meetings for the year is announced ahead of time. **The MPC may hold a special meeting outside the regular schedule to formulate a policy decision if needed**. The MPC publishes their economic and inflation forecasts on a quarterly basis.

The monetary policy formulation process for each meeting is summarized as follows.

Chart 1 Thailand's monetary policy formulation process

(1) Preparation Meetings: **The MPC Secretariat sets the theme for the MPC meeting based on the views expressed in the preceding MPC meeting and latest economic and financial data.** The MPC Secretariat also prepares key assumptions used as model inputs for forecasting economic growth and inflation forecasts. The assumptions are based on both quantitative and qualitative data, which include monthly economic data, rapid economic indicators, detailed interviews with businesses from every part of the country, and information from discussions with related government agencies, all of which contributes to a comprehensive, thorough, and timely analysis in support of the decision-making process.

(2) **Pre-MPC meeting: The MPC members discuss the latest developments, outlook, and risks pertaining to economic growth, inflation, financial markets, and financial stability.** The pre-MPC meeting serves as an input for the MPC meeting where the policy decisions are made. During periods where the situation is highly uncertain, the MPC will also conduct different scenario analysis for the Thai economy, taking into consideration the key risks to the outlook, and conduct stress tests to prepare for the worst-case scenario.

(3) **The MPC Meeting: The MPC members further discuss the key economic and financial issues as well as the different policy options in order to ascertain the most appropriate course of policy action.** The MPC considers the mix of policy tools that would be used in an integrated manner, which includes exchange rate policies and other measures under the managed-float exchange rate regime. In deciding the policy rate to signal the monetary policy direction, each MPC member will cast their vote and deliberate the rationale behind their decision. The MPC communicates its policy decision and the rationale in the MPC press release and edited minutes of the meeting.

(4) **Communication to the public: The MPC secretariat will announce the outcome of the MPC meeting at 2 p.m. on the day of the MPC meeting.** The announcement includes the policy decision and rationale, the key issues that were discussed, and a Q&A session with the press. **The edited minutes of the meeting is published two weeks after the meeting date**. Within this same timing, the **Monetary Policy Report is published, and the Analyst Meeting is held on a quarterly basis**. The Analyst Meeting provides an opportunity to have two-way communication where analysts can pose questions about the policy decisions and the views on the outlook directly to the MPC member[13/]. **In the event that inflation movement deviates from the target range, the MPC will issue an open letter** to the Finance Minister to explain the underlying reasons of inflation movements and the monetary policy actions taken to guide inflation back to the target within an appropriate time horizon. The open letter is also published on the Bank of Thailand website for public viewing.

In addition to the main channels of communications above, the Bank of Thailand also communicates with the public regarding monetary policy and other measures through other channels such as press interviews with the Governor and senior executives, press conference on monthly economic and monetary conditions, disseminating key information through short video clips and infographics on social media platforms. These additional channels of communication help keep the public informed of the latest economic developments, as well as the policy direction and rationales underpinning actions taken by the MPC and the Bank of Thailand.

Asides from the 8 MPC Meetings held within the year, the MPC has a joint meeting with the Financial Institution Policy Committee (FIPC) at least twice a year to monitor and assess Thailand's financial system stability as well as to share information between the two committees. The joint meeting enables the MPC to have a more complete and comprehensive set of information to formulate the appropriate monetary policy decision. It is also an opportunity to communicate financial stability issues to the public through the press release on the outcome of the joint meeting between the MPC and FIPC.

13/ At the Analyst Meeting, the presentation and Q&A session are conducted by ex-officio MPC members and Bank of Thailand officials (management-level) that were involved in the MPC process.

Thai Economy Dashboard

Percent	2019	2020	2019	2020			
			Q4	Q1	Q2	Q3	Q4
GDP growth	2.3	-6.1	1.3	-2.1	-12.1	-6.4	-4.2
Production							
Agriculture	-0.6	-3.4	-3.1	-9.9	-3.1	-1.1	0.9
Non-agriculture	2.5	-6.3	1.8	-1.3	-12.9	-6.7	-4.7
Manufacturing	-0.7	-5.7	-2.2	-2.4	-14.7	-5.3	-0.7
Construction	1.6	2.3	-3.1	-9.3	7.5	10.8	-0.3
Wholesales and retail trade	4.5	-3.7	3.9	3.6	-10.9	-6.1	-3.1
Transport and storage	3.0	-21.0	3.4	-5.5	-36.6	-22.2	-21.1
Accommodation and Food Service	7.8	-36.6	9.3	-23.3	-49.9	-39.3	-35.2
Information and Communication	12.3	4.7	14.2	4.4	4.1	4.5	5.7
Financial intermediation	2.2	2.7	2.5	4.3	1.7	1.6	3.3
Real estate and renting	3.8	1.4	3.3	1.7	0.9	1.5	1.3
Expenditure							
Domestic demand	3.0	-1.6	2.0	-0.6	-5.6	-0.5	0.2
Private consumption	4.0	-1.0	3.6	2.7	-6.7	-0.6	0.9
Private investment	2.7	-8.4	2.5	-5.3	-14.9	-10.6	-3.3
Government consumption	1.7	0.8	-0.8	-2.5	1.0	2.5	1.9
Public investment	0.1	5.7	-5.7	-9.1	12.6	17.6	0.6
Imports of goods and services	-5.2	-13.3	-9.5	-3.0	-23.6	-19.3	-7.0
imports of goods	-5.8	-11.9	-9.1	-2.2	-21.2	-18.1	-5.6
imports of services	-2.7	-18.6	-11.0	-6.2	-32.4	-23.9	-11.9
Exports of goods and services	-3.0	-19.4	-3.0	-5.8	-27.5	-23.3	-21.4
exports of goods	-3.7	-5.8	-5.5	1.7	-15.8	-7.5	-1.5
exports of services	-0.5	-60.0	4.9	-26.8	-67.7	-73.1	-74.8
Trade balance (billion, U.S. dollars)	26.7	39.8	6.0	9.1	8.9	13.6	8.2
Current account (billion, U.S. dollars)	38.2	16.3	11.6	9.8	1.3	6.6	-1.4
Financial account (billion, U.S. dollars)	-15.7	-3.6	-5.5	-8.4	9.8	-4.1	-0.9
International reserves (billion, U.S. dollars)	224.3	258.1	224.3	226.5	241.6	251.1	258.1
Unemployment rate (%)	1.0	n.a.	1.0	1.0	2.0	1.9	n.a.
Unemployment rate, seasonally-adjusted (%)	n.a.	n.a.	1.1	1.1	1.8	1.8	n.a.

Source: Office of the National Economic and Social Development Board National Statistical Office and Bank of Thailan

Financial Stability Dashboard

Indicators	2019	2020	2019	2020				2021	
			Q4	Q1	Q2	Q3	Q4	Jan	Feb
1. Financial market sector									
Bond market									
Bond spread (10 years - 2 years)	0.3	0.9	0.3	0.6	0.8	0.8	0.9	0.9	1.1
Equity market									
SET index (end of period)	1,590.6	1449.4	1,579.8	1,125.9	1,339.0	1,237.0	1,449.4	1,467.0	1,491.1
Actual volatility of SET index[1/]	9.4	30.4	10.1	46.9	25.2	13.7	23.0	17.6	12.4
Price to Earnings ratio (P/E ratio) (times)	19.4	28.8	19.4	13.0	18.9	21.2	28.8	29.3	30.4
Exchange rate market									
Actual volatility of Thai baht (%annualized)[2/]	4.1	5.4	2.7	5.5	5.5	5.3	5.2	4.8	3.5
Nominal Effective Exchange Rate (NEER)	123.2	122.6	126.8	123.3	122.5	122.0	122.5	123.0	122.1
Real Effective Exchange Rate (REER)	112.8	110.2	115.3	114.4	113.0	111.1	110.4	110.0	110.4
2. Financial institution sector[3/]									
Minimum Lending Rate (MLR)[4/]	6.08	5.36	6.08	5.93	5.36	5.36	5.36	5.36	5.36
12-month fixed deposit rate[4/]	1.33	0.49	1.33	0.75	0.49	0.49	0.49	0.49	0.48
Capital adequacy									
Capital funds / Risk-weighted asset (%)	19.6	20.1	19.6	18.7	19.2	19.8	20.1	n.a.	n.a.
Earning and profitability									
Net profit (billion, Thai baht)	270.8	145.2	56.4	67.5	32.4	28.0	17.3	n.a.	n.a.
Return on assets (ROA) (times)	1.4	0.7	1.4	1.0	0.6	0.5	0.7	n.a.	n.a.
Liquidity									
Loan to Deposit and B/E (%)	96.2	92.3	96.2	92.5	92.8	93.0	92.3	n.a.	n.a.
3. Household sector									
Household debt to GDP (%)	79.8	89.3	79.8	80.2	83.8	86.6	89.3	n.a.	n.a.
Financial assets to debt (times)	3.0	n.a.	3.0	2.8	2.9	2.8	n.a.	n.a.	n.a.
Non-Performing Loans (NPLs) of commercial banks (%)									
Consumer loans	2.9	2.8	2.9	3.2	3.1	2.9	2.8	n.a.	n.a.
Housing loans	3.7	3.8	3.7	4.0	4.0	3.9	3.8	n.a.	n.a.
Auto leasing	1.9	1.4	1.9	2.1	1.9	1.6	1.4	n.a.	n.a.
Credit cards	2.4	2.4	2.4	3.5	3.0	2.4	2.4	n.a.	n.a.
Other personal loans	2.3	2.4	2.3	2.6	2.5	2.3	2.4	n.a.	n.a.
4. Non-financial corporate sector[5/]									
Operating profit margin (OPM) (%)	6.9	6.5	6.6	6.3	4.6	7.4	7.6	n.a.	n.a.
Debt to Equity ratio (D/E ratio) (times)	0.7	0.8	0.7	0.9	0.8	0.8	0.8	n.a.	n.a.
Interest coverage ratio (ICR) (times)	5.2	4.0	3.9	3.8	2.7	4.3	5.4	n.a.	n.a.
Current ratio (times)	1.6	1.6	1.6	1.5	1.5	1.5	1.6	n.a.	n.a.
Non-Performing Loans (NPLs) of commercial banks (%)									
Large businesses	2.1	2.6	2.1	2.1	2.5	2.6	2.6	n.a.	n.a.
SMEs	6.0	6.8	6.0	6.5	6.2	6.5	6.8	n.a.	n.a.

Note:

[1/] Calculated by 'annualized standard deviation of return' method

[2/] Daily volatility (using exponentially weighted moving average method)

[3/] Based on data of all commercial banks

[4/] Average value of 5 largest Thai commercial banks

[5/] Only listed companies on Stock Exchange of Thailand (median value); with data revisions

Financial Stability Dashboard (continue)

Indicators	2019	2020	2019	2020				2021	
			Q4	Q1	Q2	Q3	Q4	Jan	Feb
5. Real estate sector									
Number of approved mortgages from commercial banks (Bangkok and Vicinity) (units)									
Total	70,876	70,950	18,042	14,882	17,531	18,977	19,560	3,361	4,982
Single-detached and semi-detached houses	16,167	17,367	4,125	3,553	4,408	4,790	4,616	914	1,317
Townhouses and commercial buildings	24,763	23,062	5,625	5,314	5,559	6,128	6,061	1,211	1,774
Condominiums	29,946	30,521	8,292	6,015	7,564	8,059	8,883	1,236	1,891
Number of new housing units launched for sale (Bangkok and Vicinity) (units)									
Total	116,933	73,022	34,254	18,591	11,535	23,122	19,774	1,378	5,433
Single-detached and semi-detached houses	19,423	17,746	5,738	3,682	3,495	5,483	5,086	507	1,082
Townhouses and commercial buildings	31,423	29,370	8,925	8,132	6,046	9,396	5,796	451	910
Condominiums	66,087	25,906	19,591	6,777	1,994	8,243	8,892	420	3,441
Housing price index (2009 = 100)									
Single-detached houses (including land)	144.0	150.3	146.3	149.1	151.3	150.51	150.38	151.0	151.5
Townhouses (including land)	156.4	163.6	159.8	164.0	164.7	162.40	163.17	162.7	163.9
Condominiums	182.3	184.8	191.6	190.0	190.2	179.24	179.86	186.2	189.4
Land	172.8	186.5	180.6	181.6	185.1	188.52	190.79	192.4	194.0
6. Fiscal sector									
Public debt to GDP (%)	41.2	51.8	41.2	41.7	45.8	49.4	51.8	52.0	n.a.
7. External sector									
Current account balance to GDP (%)[6/]	7.0	3.3	8.1	7.3	1.2	5.4	-1.0	n.a.	n.a.
External debt to GDP (%)[7/]	34.2	36.7	34.2	32.4	33.6	33.4	36.7	n.a.	n.a.
External debt (billion, U.S. dollars)	171.9	190.0	171.9	165.3	171.7	171.6	190.0	n.a.	n.a.
Short-term (%)	34.8	39.4	34.8	35.9	36.0	36.1	39.4	n.a.	n.a.
Long-term (%)	65.2	60.6	65.2	64.1	64.0	63.9	60.6	n.a.	n.a.
International reserves / Short-term external debt (times)	3.8	3.5	3.8	3.8	3.9	4.0	3.5	3.5	3.3

Note:

[6/] Current account / Nominal GDP at the same quarter

[7/] External debt / 3-year average nominal GDP

Table: Probability distribution of GDP growth forecast

Percent	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
> 14.0	0	4	0	0	0	0	0	0
12.0-14.0	0	11	0	0	1	1	1	1
10.0-12.0	0	21	1	0	3	3	3	4
8.0-10.0	0	24	4	2	9	7	8	9
6.0-8.0	0	19	10	6	15	14	14	14
4.0-6.0	0	12	18	13	18	17	17	17
2.0-4.0	0	6	20	18	17	17	17	16
0.0-2.0	4	2	18	18	14	15	14	14
(-2.0)-0.0	21	1	13	15	10	11	11	10
(-4.0)-(-2.0)	35	0	8	12	6	7	7	7
(-6.0)-(-4.0)	26	0	4	8	3	4	4	4
(-8.0)-(-6.0)	11	0	2	4	2	2	2	2
(-10.0)-(-8.0)	3	0	1	2	1	1	1	1
< -10.0	0	0	0	2	0	1	1	1

Table: Probability distribution of headline inflation forecast

Percent	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
> 5.25	0	2	0	0	0	0	0	0
4.5-5.25	0	6	0	0	1	0	1	1
3.75-4.5	0	17	2	2	2	2	2	2
3.0-3.75	0	27	5	6	6	5	5	6
2.25-3.0	0	26	12	12	12	10	11	11
1.5-2.25	0	15	21	20	19	16	16	16
0.75-1.5	1	5	24	23	21	20	19	18
0.0-0.75	15	1	19	19	18	19	18	17
(-0.75)-0.0	51	0	11	11	12	14	13	13
(-1.5)-(-0.75)	30	0	4	5	6	8	8	8
(-2.25)-(-1.5)	3	0	1	2	2	4	4	4
(-3.0)-(-2.25)	0	0	0	0	1	1	2	2
(-3.75)-(-3.0)	0	0	0	0	0	0	0	1
< -3.75	0	0	0	0	0	0	0	0

Table: Probability distribution of core inflation forecast

Percent	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
> 3.0	0	0	0	0	0	0	0	0
2.5-3.0	0	0	0	0	0	0	0	0
2.0-2.5	0	0	0	1	1	1	1	1
1.5-2.0	0	3	2	3	4	4	4	5
1.0-1.5	1	14	9	10	11	11	12	13
0.5-1.0	14	29	20	21	21	21	21	22
0.0-0.5	43	30	27	26	25	25	24	24
(-0.5)-0.0	34	17	23	21	20	20	19	18
(-1.0)-(-0.5)	8	5	12	12	11	12	11	10
(-1.5)-(-1.0)	1	1	4	5	5	5	5	4
(-2.0)-(-1.5)	0	0	1	1	1	2	1	1
(-2.5)-(-2.0)	0	0	0	0	0	0	0	0
(-3.0)-(-2.5)	0	0	0	0	0	0	0	0
< -3.0	0	0	0	0	0	0	0	0

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